A LATE ARCHAIC SEQUENCE IN SOUTHERN LABRADOR

MARCIE MAURA MADDEN

NOTICE

The quality of this microfiche is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us a poor photocopy.

Previously copyrighted materials (journal articles, published tests, etc.) are not filmed.

Reproduction in full or in part of this film is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30. Please read the authorization forms which accompany this thesis.

THIS DISSERTATION
HAS BEEN MICROFILMED
EXACTLY AS RECEIVED

AVIS

La qualité de cette microfiche dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de mauvaise qualité.

Les documents qui font déjà l'objet d'un droit d'auteur (articles de revue, examens publiés, etc.) ne sont pas microfilmés.

La reproduction, même partielle, de ce microfilm est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30. Veuillez prendre connaissance des formules d'autorisation qui accompagnent cette thèse.

LA THÈSE A ÉTÉ
MICROFILMÉE TELLE QUE
NOUS L'AVONS REÇUE

A LATE ARCHAIC SEQUENCE IN SOUTHERN LABRADOR

by

Marcie Maura Madden, B.A.

A Thesis

submitted in partial fulfillment of the requirements

for the degree of

MASTER OF ARTS IN ANTHROPOLOGY

Memorial University of Newfoundland

May, 1976

St. John's Newfoundland

ABSTRACT

This study will consider two multicomponent late Archaic sites on the southern Labrador coast, the Black Rock Brook site, EjBe-24, and the Iceberg site, EjBe-19, which together provided evidence of at least ten discrete and dated components spanning the period, ca. 3500-2000 B.P.

These sites were rather unproductive and unspectacular in terms of cultural material and altogether only 260 chipped stone artifacts, comprised primarily of notched projectile points, assorted bifaces, and a variety of unifacial implements such as flake points, scrapers, linear flakes and retouched flakes, were recovered from both areas. A large number of hearth features was associated with this material, which provided abundant charcoal for dating purposes; however, there was no evidence of dwelling structures, nor was any organic material preserved, and reconstruction of the full range of cultural activities engaged in by these people, their settlement pattern and economy, was somewhat conjectural. Generally speaking, the coastal location of these definitely suggests a maritime oriented economy, and no doubt these campsites were occupied during the spring and summer months for the purpose of exploiting available marine fauna.

The majority of these components can be placed within a single cultural and technological tradition which seems to have developed within this region from an earlier 'Maritime Archaic' base and can be considered part of a larger Northern Maritime Cultural Tradition that probably endured on the Labrador coast from the Paleo-Indian period to the historic times. These components, which were placed in a chronological order using evidence from seriation, radiocarbon dating, and a comparison of similar and presumably related materials from other sites in Labrador and Newfoundland, provided the basic structure for the establishment of a cultural sequence and typology to which other materials could be related, and from which it was possible to provisionally demonstrate some sort of continuity and relationship between the late Archaic populations and historically known peoples in the area.

ACKNOWLEDGEMENTS.

This study was suggested and supported by James A. Tuck and Robert McGhee of Memorial University, both of whom I wish to thank for their help and generosity throughout all stages of this work. Additional thanks is also given to James Tuck for his advice on, and criticisms of the final draft of this manuscript.

I am grateful to Robert Stuckenrath of the Smithsonian Institution who assayed the radiocarbon samples; to Ben Hansen's Photographic Services at Memorial University who processed and printed the feature and artifact plates; and to Dallas Strange who typed the final manuscript. Special thanks is given to Tip Evans for the many hours spent preparing the final drawings for this report.

Finally, I am especially indebted to my field crew of Priscilla Renouf and Tip Evans, who although few in number, accomplished a great deal of work in the short one month period allotted for this excavation. Without their assistance and friendship this work could not have been accomplished.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF PLATES

INTRODUCTION

The prehistory of southern Labrador, hitherto unknown except in terms of data recovered from cursory surveys carried out and mentioned briefly by T.G.B. Lloyd (1875), A.V. Kidder (1927), A.H. Mallory (Harp, 1964: 193), and Elmer Harp, Jr. (1951, 1964), has of late received considerable attention and clarification as a result of intensive work being carried on in this area by James A. Tuck and Robert McGhee (1975a).

In the course of this investigation, over twenty sites were discovered, tested and at least partially excavated, yielding data on cultural manifestations spanning a 6,000 year period. Furthermore, a tentative and broad typological and chronological ordering of this material was proposed, which indicated that the coast of southern Labrador had been occupied continuously (albeit with gaps attributable both to insufficient sampling and probable periodic population depletion), by various groups of Archaic Indians, Paleo-Eskimos, Beothucks, Montagnais and Inuit peoples from the Paleo-Indian period to the recent historic times.

The formative stages of the continuum (ca. 8000-4500 B.P.), are reasonably well documented due to the large quantity of recovered material pertaining to this period. In fact, intensive excavation and analysis of a late Paleo-Indian/early Archaic site near West St. Modeste has recently,

been completed (cf. Renouf, n.d.), which should provide the details necessary for the clarification of several problems relating to the origin and development of those earlier cultures in Labrador.

The latter 3,000 year period of occupation, however, was not as clearly understood, with evidence relating to this period being comprised almost entirely of scattered surface finds or mixed components that lacked secure chronological provenance. These later Indian cultures were provisionally identified and defined on their use of a variety of notched projectile points which Tuck (1975a: 106-107), suggested represented a stylistic development from earlier stemmed forms; however, the fragmentary nature of the archaeological data made it impossible to discern the pattern of temporal variability amongst these forms or to evaluate the larger cultural contexts in terms of other aspects of technology, economy and settlement patterns.

Recent excavations at the Black Rock Brook site (EjBe-24) and Iceberg site (EjBe-19) has yielded evidence of at least ten discrete and dated components pertaining to Indian occupation during a major portion of this period (ca. 3500-2000 B.P.). These sites were rather unproductive in quantitative terms; however, they did allow for the segregation of specific temporal and cultural units which provided the basic structure for the establishment of a reasonably

accurate cultural succession beginning in the third millennium B.C. and continuing into the historic period.

This study is concerned with the description, analysis and comparison of these excavations, the sites, and the recovered archaeological materials. The approach taken is basically culture-historical, with discussion being directed towards a number of specific problems including: (1) definition of the basic character of each phase unit in terms of settlement pattern, economy and technology; (2) demonstration of regional and temporal variation as far as this can be determined within the confines of available data; and (3) construction of a fairly detailed chronological and typological sequence to which other materials can be related, and from which it may be possible to demonstrate some sort of continuity and relationship between the Late Archaic populations and historically known peoples in the area.


ICEBERG SITE
FEATURE 1
JUNE 9 1975

CHAPTER I

THE SETTING AND EXCAVATION

1. Regional Setting

The Iceberg and Black Rock Brook sites are located in southeastern Labrador along that narrow coastal strip, some 3-30 km. wide, which runs from the mouth of the Moisie River north to Hamilton Inlet (Hare, 1959: 39). To the west lies the closed-crown forests of the Canadian Shield and to the east lies the Strait of Belle Isle and the Atlantic Ocean (Figure 1).

Physiographically, a major portion of this area lies within Hare's "southeastern plateau belt," a rough undulating plateau that stretches from the Romaine Valley in the southeast to Lake Melville in the north (Ibid: 46). The coastal sections of this belt are barren with headlands reaching 100-200 meters alternating with wide and shallow bays opening on the Strait to the south and east (McGhee and Tuck, 1975: 2).

These wide valleys are transected by a series of southeastward flowing brooks and rivers rising from ponds a few kilometers inland and fed by rain and meltwater running down the slopes. There are only two large river systems: Rivière St. Paul, situated to the west of Bradore Bay, and Pinware River, located just north of the Black Rock Brook site.

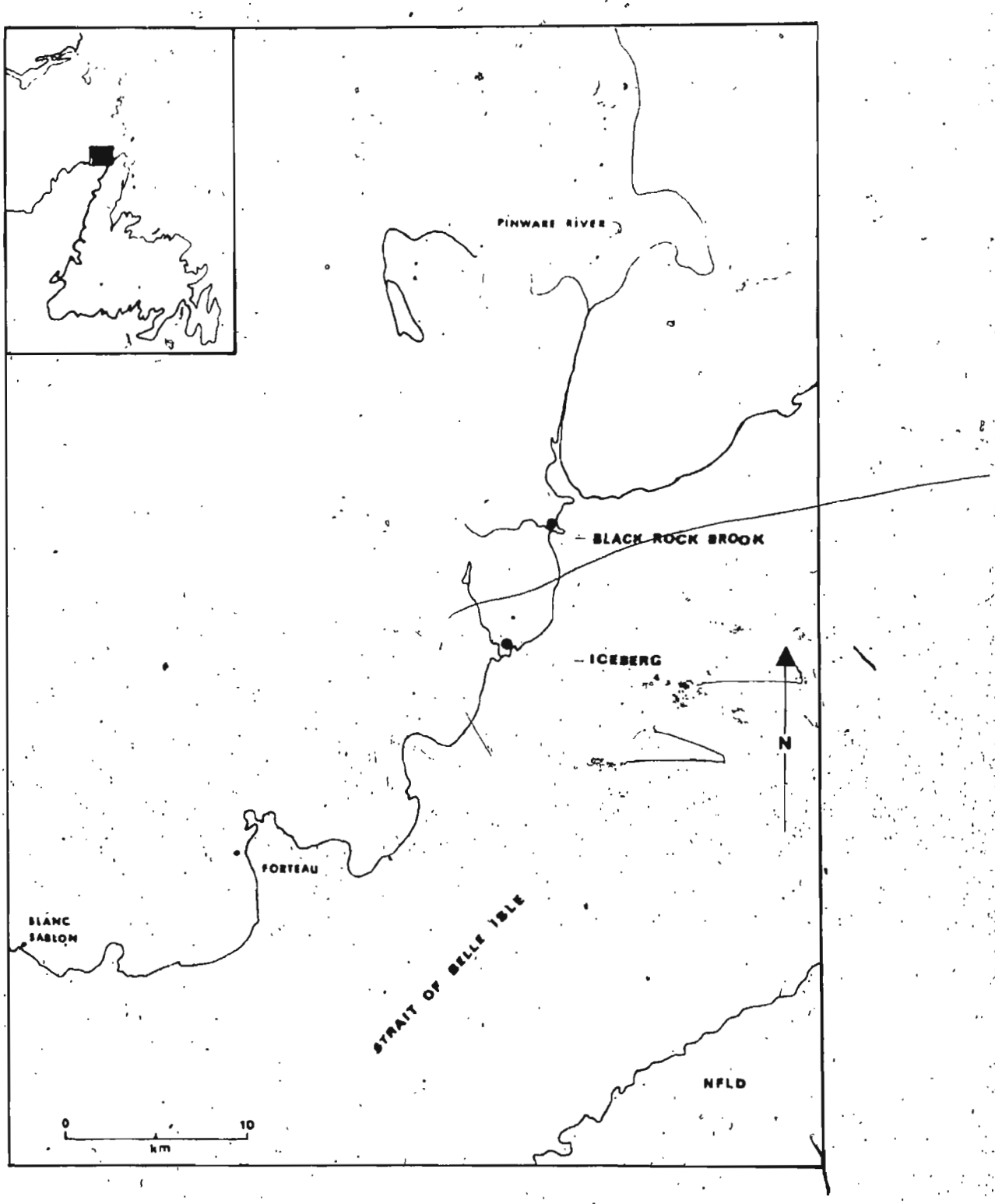

PINWARE RIVER
BLACK ROCK BROOK
ICEBERG
N
FORTEAU
BLANC SABLON
STRAIT OF BELLE ISLE
NFLD
0
10
km

Figure 1

The climate, vegetation and fauna of this area have already been summarized and discussed in some detail by McGhee and Tuck (1975a: I-8), and to a lesser extent by Fitzhugh (1972: 167-178); hence, I shall confine my discussion to but a brief summary of those items directly relevant to the topic and necessary for an understanding of this material.

The environment of this area is to a great extent influenced by the cold Labrador current which trends southeastward from Greenland to the St. Lawrence; for in providing a continuous source of cold water with pack ice six to seven months of the year, it imparts to the area essentially sub-Arctic environmental conditions (Hare, 1952: 39-40). The heavy pack and shore ice which forms in the Straits roughly from October to the end of May, has a depressing influence on temperature all the year round with winters being cold and long, and summers being cool and short. The annual mean temperature is only 0.1°C, with a maximum mean of 10.2°C. being reached in August and a low of -9.6°C. occurring in January (readings from the Belle Isle Station; Hare and Thomas, 1974: Appendix III). Precipitation is abundant and well distributed throughout the year, with a maximum during the later part of the summer and autumn and a minimum in April. The annual mean fall is over 89 cm. with the wettest month (usually August), having a mean rainfall of over 10 cm. (Ibid: Appendix IV).

Fog, caused primarily by the merging of the cold Labrador current and the Gulf Stream off the Newfoundland banks, is prevalent in this area as well. It is known all year round; however, its maximum frequency usually occurs from July through October, when at times it can account for over 19 consecutive days in a single month (Tanner, 1944: 322).

The present vegetation is classified by Hare (1959: Figure 5), as "coastal tundra," characterized and dominated by abundant lichen-heath cover, as well as small amounts of larger scrub brush and shrubs such as willow or alder thickets, with fingers of forest containing a few patches of scrubby spruce, fir, or birch, growing along the river valleys or in sheltered areas near the shores of the bays. The only vegetal foods supported in this area, which incidentally has an average of only 97 frost free days per annum (Hare, 1952: Table 11), include a few edible herbs and numerous varieties of berries, the most important of which are the cranberry, the blueberry, the baked-apple, the partridge-berry and the blackberry.

Terrestrial resources suitable for human exploitation in this area are scarce and occur primarily in the interior boreal forest regions to the west and north. In the past, caribou undoubtedly comprised the most important of these resources with other common northern bush mammals such as the black bear, moose, beaver and hare providing additional supplement when they became available.

The primary and essential focus of populations inhabiting this region was undoubtedly the sea as the rich subarctic marine ecosystem provides an abundant, diverse, and relatively stable supply of resources for exploitation during a major portion of the year. The gregarious and migratory harp seal, which move southward on the pack ice in late February and March to breed and moult (Mansfield, 1963), was undoubtedly the most abundant and important single food source. Other ice-related species such as the hooded seal and walrus (now extinct in this area), were also available, albeit in much smaller numbers.

Following breakup in the spring and continuing until the fall, these species are replaced by other open-water mammals such as the harbour seal, the grey seal, and the porpoise. Large numbers of whales including the Fin, the Blue, and the Humpback, as well as the smaller species of Minke and Pilot whales, occur in this region from July to October (Sergeant, 1961). Acquisition of any but the smaller varieties, however, was probably beyond the technological capabilities of these people.

The most important and obvious fish resources available include the capelin and cod which are found in inshore waters in early summer; as well as the anadromous species of Atlantic salmon and sea trout which ascend the rivers to spawn in early July (Tanner: 433). Sea-birds and other migratory waterfowl, including the now extinct Great auk and

Labrador duck, as well as other varieties of ducks, puffins, geese, gulls and murres are also available throughout the summer and were probably important for both their meat and eggs.

2. The Iceberg Site: The Local Setting

The Iceberg site is located "on a sandy terrace 400 meters east of the main brook flowing past the abandoned settlement of L'Anse au Diable, and 200 meters inland from the present coast at an elevation of 7 meters above the sea" (McGhee and Tuck, 1975a: 67). This section of the coast lies within a shallow, broad valley surrounded on both sides by red sandstone cliffs rising to over 120 meters, with the site being located at the mouth of this valley facing the sea.

The general site area (Figure 2) is about .30 hectares in extent bounded on the north by a road, on the east by a lowlying bog area that stretches to a shallow cove, and on the south and west by a series of extensive granitic outcrops which provide a rocky surface unsuitable for habitation. These rocks, which also occur as smaller outcrops in other areas of the site, are part of a "Precambrian basement" of granite and granitic gneiss that underlies this area from West St. Modeste south to Bradore Bay (Fong, n.d.: 9). Aside from these rocks the present surface is covered with tundra vegetation marked by a series of scattered low sand dunes

which are pocked with shallow blowouts. A narrow gully, probably an old stream bed, runs southeastward through the centre of these deposits as well, and a small stand of dwarf spruce and alder are contained in this depression.

Excavation

It was suspected that this area was the L'Anse au Diable 2 site investigated by Harp (1964: 197), and subsequent discovery of a biface tip that fitted a basal fragment recovered by him from that very site nearly 15 years earlier, provided the needed confirmation of this fact. These investigations were limited to the recovery of materials found on the surface of blowouts and a brief description of this collection is provided by Harp (225).

In the spring of 1974, further surface collecting as well as some preliminary test excavations were carried out in this area again, in the course of an intensive archaeological survey of this area being carried out under the direction of Robert McGhee and James Tuck from Memorial University. A block of 15 square meters was excavated north of a large blowout in what is now Area 1 (Figure 4), and a smaller 4 square meter area was dug some 25 meters to the south in what is now Area 3B (Figure 6). Some 40 artifacts and a large concentration of cobbles and small boulders--later designated as a hearth (Feature 1)--were uncovered in the course of this preliminary excavation.

In the spring of 1975 we returned to the area again so as to delimit all areas of intensive occupation at the site and undertake a full scale excavation of those areas which looked most promising. Further systematic testing yielded evidence of cultural materials in at least three more loci extending over 50 meters to the south of the first year's excavations, and it was decided to expand excavations in this direction. A flake point and a biface fragment, as well as what appeared to be the remains of a hearth, were also found eroding from the bank near the road that marked the northern terminus of the site; but we were unable to discover the occupation layer from which the exposed material derived, and it was concluded that this particular component had been completely destroyed by the road cut.

Datum was established at a large rock situated in the central southwestern section of the site and excavations were carried out by a grid system laid out in metric measurements. Excavations covered five separate areas and extended 25 meters to the north, 15 meters to the east and 45 meters to the south of this point. Ten meter square units were initially set up to cover these areas; however, these units were further divided into one meter squares to facilitate recovery and recording of data. Each of the five loci was given an arbitrary number designation running from north to south, and within each area, where distinctive and separate living floors could be detected, additional letter designations were given to denote these

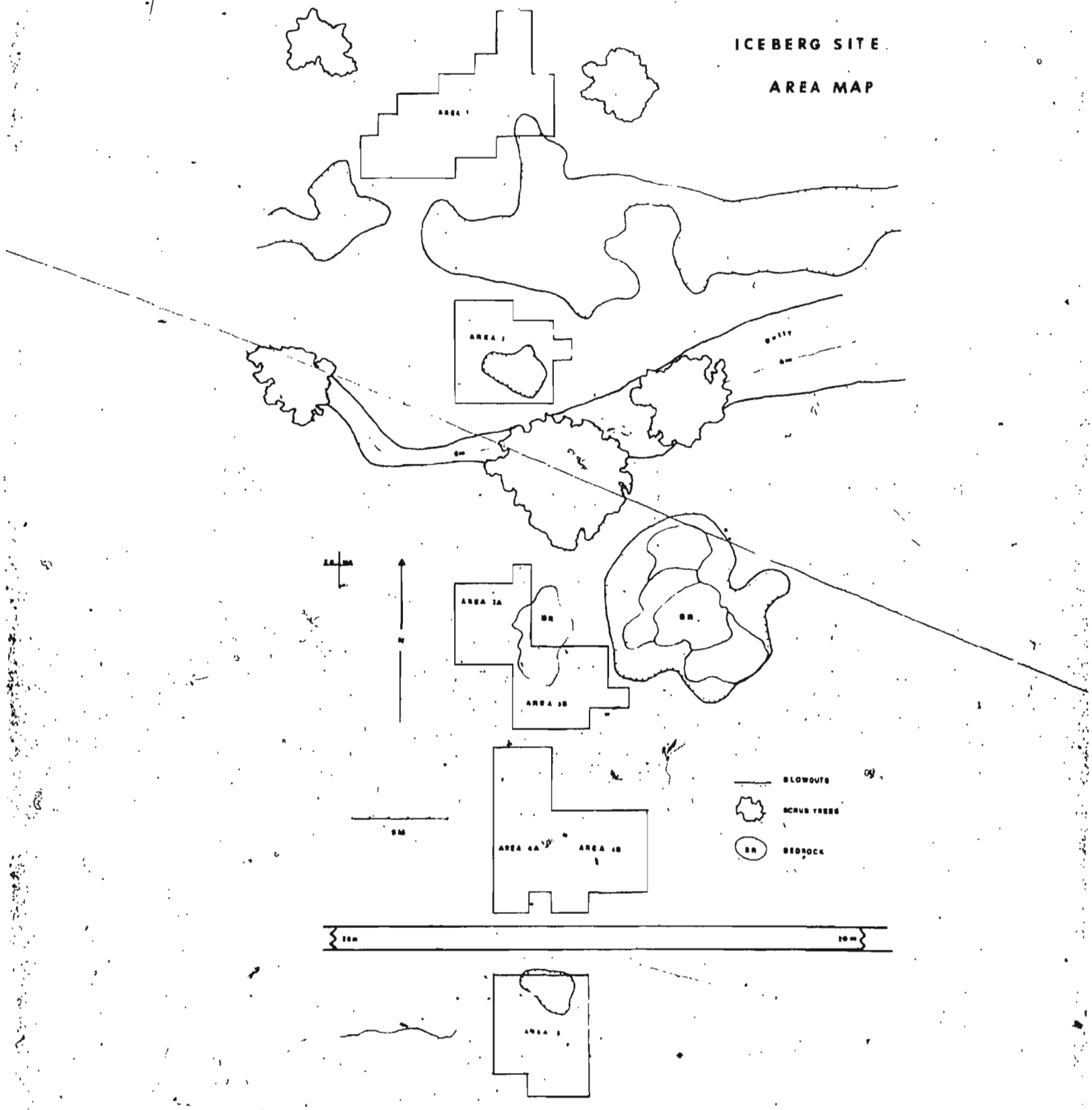

ICEBERG SITE
AREA MAP
AREA 1
AREA 2
AREA 3A
AREA 3B
AREA 4A
AREA 4B
AREA 5
BR
BLOWOUTS
SCRUB TREES
BEDROCK

Figure 2

components (Area 3a, 3b, etc.).

Altogether, nine separate components were recognized, a description of which shall be presented in the following chapters together with a discussion of the associated features and artifactual remains.

Stratigraphy

The stratigraphy was simple and similar in all areas, albeit with slight variation particularly in terms of the depth of the overlying peat deposit (Figures 3a and 3b).

Immediately underlying the surface cover of lichen and heath vegetation was a humus/peat deposit of variable thickness. In most areas this deposit was comprised of several distinct layers: (1) a thin sandy humus 1-4 cm. thick; (2) a thin layer of aeolian sand of variable thickness; and (3) a dark compressed ancient peat zone from 1-5 cm. thick. In the southern section of the site, away from the unstable dune deposits, the intervening aeolian sand layer (2) was not discernible so that the upper peaty humus (1), graded directly into the ancient peat layer (3), providing a continuous peat deposit that sometimes reached up to 25 cm. in depth (Figure 3b).

In both cases, all cultural materials recovered from this site occurred below this peaty zone, at depths of 1-5 cm. in the underlying aeolian sand (4). This sand horizon continued until it met the beach gravels and boulders which marked the old strand line.

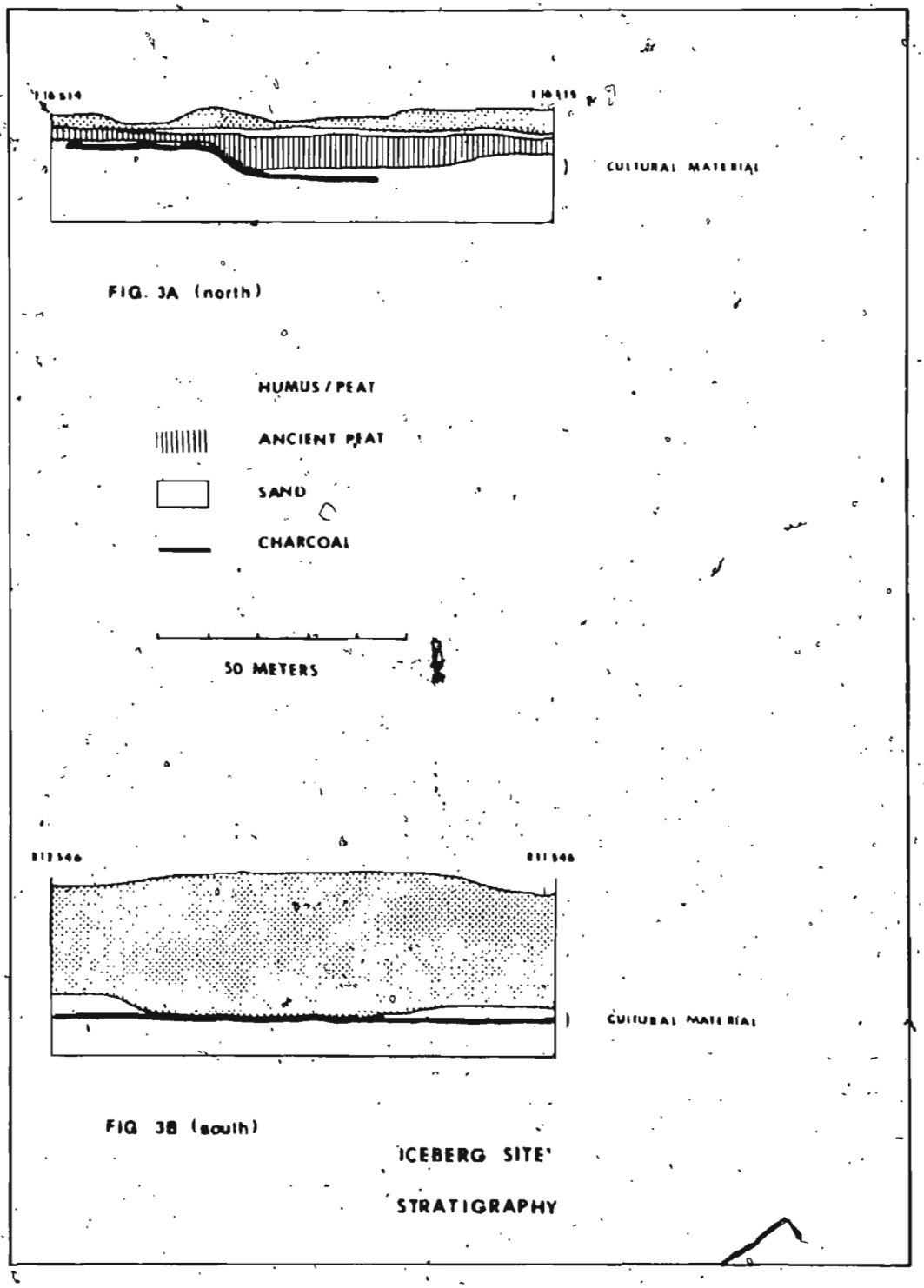

CULTURAL MATERIAL
FIG. 3A (north)
HUMUS / PEAT
ANCIENT PEAT
SAND
CHARCOAL
50 METERS
CULTURAL MATERIAL
FIG 3B (south)
ICEBERG SITE
STRATIGRAPHY

Figure 3

3. The Black Rock Brook Site: The Local Setting

The Black Rock Brook site is situated just south of the village of Pinware on a lowlying point of land about 70 meters inland from the present coast at an elevation of ca. 7 meters above sea level. The entire site encompasses only about 100 square meters and is bounded on the south by a small brook, on the east by the sea, and on the west and north by a road which is situated about 8 meters above the site on a low hill. The surface is similar to that found at Iceberg in that it is covered by tundra vegetation interspersed with rocky outcrops and scattered shallow blowouts. Unfortunately, there are no maps of this site available due to an overzealous janitorial staff who saw fit to dispose of these articles after I had unwittingly left them on the floor one day.

Excavation

The site was discovered by Jim Tuck and Robert McGhee during the course of reconnaisance work carried out in this area in June 1975, when a large number of white chert flakes, found scattered over the surface of a small blowout, were traced to an occupation horizon in the adjacent bank. Testing indicated the presence of a significant undisturbed deposit in this area and a grid was set up over a 10 x 10 meter area to investigate the extent of this occupation. Excavation and recording were carried out in the manner described for Iceberg.

Altogether, a total of 36 square meters were uncovered revealing a single large living area containing several scattered hearth features in association with abundant charcoal, large numbers of flakes and 95 artifacts. This material will be described and discussed in the following chapter.

Stratigraphy

The stratigraphy of this area was the same as that described in the northern section of the Iceberg site (cf. Figure 3b), with all artifactual material being recovered below the peat deposit at a depth of 2-10 cm. in the underlying sand.

CHAPTER II

AREA DESCRIPTIONS

1. The Iceberg Site: Area 1

Area 1 was located in the northeastern section of the site about 50 meters from the road and was oriented longitudinally in an east/west direction. The full extent of this area could not be determined as its southern periphery bordered on a large sand blowout and its banks had been subject to erosional activity for many years. Nevertheless, it was still the largest occupational unit excavated at Iceberg, with a total area size of over 42 square meters.

The majority of cultural material was distributed in two main activity areas which were roughly oval in outline and encompassed about 30 square meters each. Each of these loci represented a separate living floor, the central focus of which was one or more large hearths in association with quantities of waste flakes and a variety of artifactual debris (Figure 4).

The first living floor, located in the southwestern section of the area, contained only one hearth, Feature 1 (Plate 1). This feature was irregular in outline and consisted of a rather loose concentration of firecracked and burnt rocks, many of which existed only as stains. It was approximately 1.90 meters long and 1.50 meters wide with its

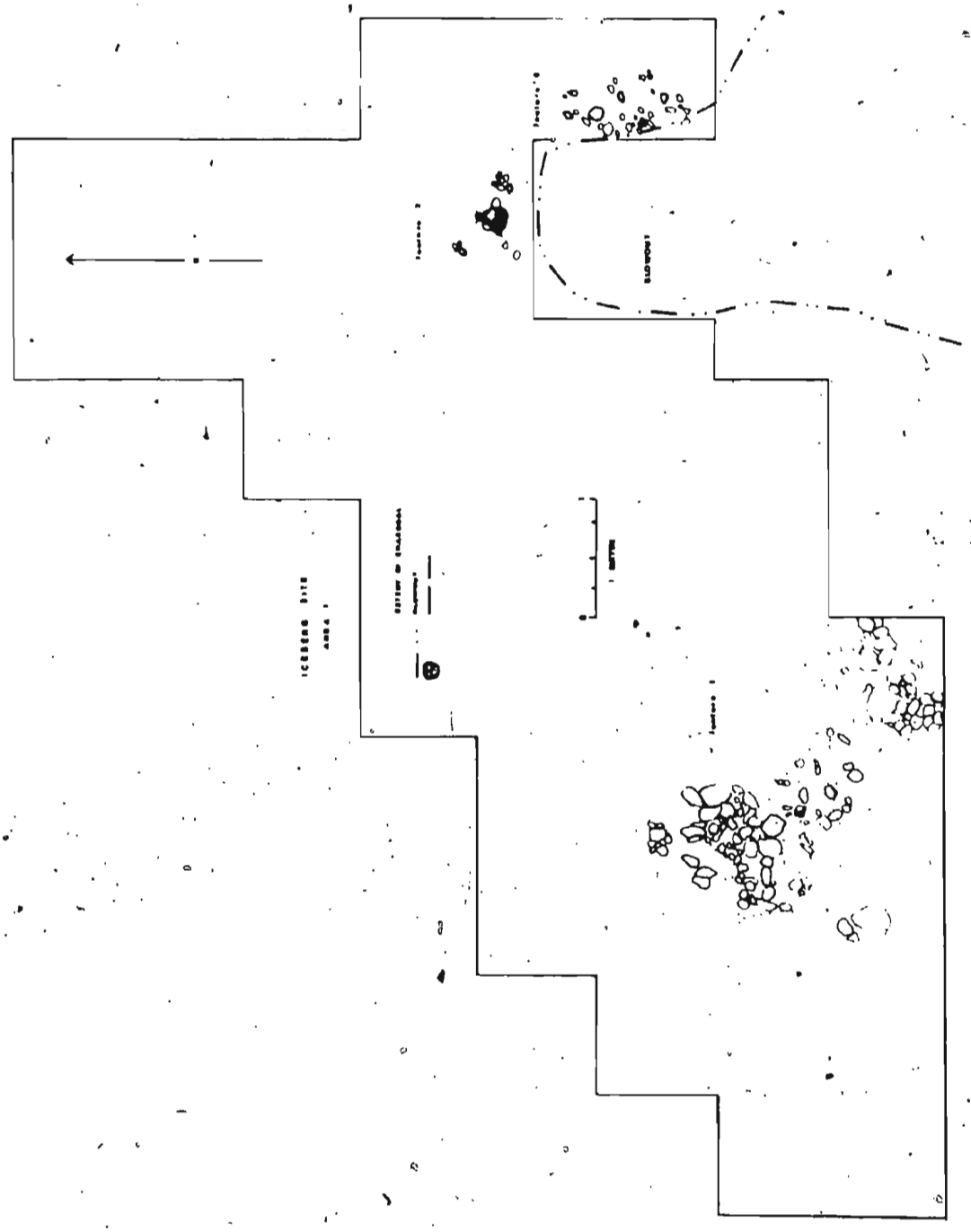


Figure 4

longitudinal axis oriented towards the northeast. In section the hearth was shallow and rested directly on the surface of the living floor, with a depth equal only to the thickness of the rock concentration (2-8 cm.). The absence of pits or depressions was characteristic of all the hearth features found at Iceberg and is undoubtedly related to the temporary and seasonal nature of these occupations.

Charcoal was abundant throughout the hearth and in the immediate surrounding area, occurring in thick chunks in the densest areas of rock concentration. A collected sample yielded a date of 2410 ± 50 B.P. (SI-2313).

The 22 artifacts associated with this living floor, along with a large amount of flaking debris, were concentrated within the hearth feature and on the immediate peripheries of the floor.

Two hearths were associated with the second living floor, which was located in the northeastern section of the area about 2 meters away from the first. One hearth, designated Feature 2, was situated on the edge of the sand-blowout which marked the southern periphery of this component and was partially destroyed by erosion before excavation. However, a large number of artifacts extended from the remains of this hearth in a southerly direction along the undisturbed edge, and I suspect that the hearth may also have extended in this direction before its destruction. If so, then this hearth was probably similar to Feature 1 in form and size.

What remained at the time of excavation consisted of a small concentration of burnt rock and stains measuring approximately 60 meters long (NS) and 1 meter wide (EW). Charcoal was abundant within and surrounding this feature and a sample taken in 1975 yielded a date of 2115 ± 70 B.P. (S1-2427).

Flaking debris, consisting of a dense layer of small flakes similar to the lithic debris found in the other area, occurred throughout this feature covering a total of 2 square meters at depths up to 2 cm. A total of 34 artifacts was found within or in close proximity to this feature.

To the east of this hearth and isolated from the main artifact concentrations there was another hearth of roughly rectangular shape and measuring 1.20 meters long (NS) and 50 cm. wide (EW). This feature consisted of very widely scattered firecracked and disintegrated rocks within which a small amount of charcoal was thinly distributed. A large quantity of chipping debris was found within and surrounding this feature, but only one artifact, a stemmed flake point, could definitely be associated with it. No date was obtained for this feature; however, it probably represents a second locus of activity associated with this living floor, the remains of which have been lost through erosion.

Both living floors lacked any evidence of definite houselines or permanent structures and it appears that if shelters were used they probably consisted of nothing more

than skin tents or simple windbreaks.

Although there is nearly a two hundred year difference between the carbon fourteen dates for each of these occupations, the domestic debris associated with these components was indistinguishable both in terms of raw materials and technology, and was undoubtedly produced by groups of related people whose exploitative pattern and technology did not change significantly during the interval between occupations. Because of this similarity, the artifactual remains shall be dealt with as a single unit in the following discussion.

A total of 56 artifacts, all made of chipped stone, was recovered from both components in this area. A distinctive material similar to Ramah chert and designated "Iceberg chert" (cf. page 52) was the most common raw material used, accounting for over 92% of the 716 waste flakes recovered. The remaining 8% included a variety of fine grained cherts and some quartz.

Bifaces comprised the largest tool class, with a total of 28 specimens accounting for 50% of the total tool assemblage. A variety of forms were found to exist in this class including large and small lanceolate, leaf-shaped, triangular, bipointed and notched forms. Over 90% of these specimens were broken and this, along with the fact that the majority lacked the fine edge retouch associated with projectiles, indicated that they probably

functioned as knives.

Projectiles accounted for another 23% of the assemblage; these included 4 small lanceolate points, 3 side-notched basal fragments, 5 stemmed flake points, and 1 ovate flake point. All these specimens were made from Iceberg chert except three of the lanceolate specimens and one side-notched fragment, which were manufactured from quartz and chert, respectively.

The remaining 27% of the assemblage consisted of a perforator and a variety of unifacial implements, including 1 side-notched flake knife, 7 scrapers, 2 retouched flakes, and 4 linear flakes. All were manufactured from Iceberg chert.

The lithic debris was comprised mainly of small thinning flakes and there was a noticeable lack of large flakes, cores, or rough preforms. In fact, all the recovered artifacts were finished tools or were being utilized in their unfinished state and this, along with the low tool/flake ratio of 1/13 and the absence of hammerstones, anvils and abraders, indicates that only secondary reworking or sharpening of implements was carried on at Iceberg.

In summary, it appears that we are dealing with two small exploitation camps, occupied by several families of temporally disparate but culturally related peoples who were engaged in a very limited range of hunting and related domestic activities.

Area 2

Area 2 was situated about 6 meters to the south of Area 1. Its northern boundary occurred near the large blowout which marked the southern periphery of the first area, while its eastern and southern edges sloped gradually into a large gully which transected the entire site.

A total of 21 square meters was excavated, however, the majority of cultural material was derived from a central 12 square meter area. Unlike Area 1, this unit is considered to represent a single occupation as the artifact distribution was fairly continuous throughout the area and as such precluded the designation of more than one living floor. Two hearths, both of them shallow sand hearths, similar in appearance to those found in Area 1, were excavated in this area (Figure 5).

Feature 3, the largest of the two hearths, was situated in a small deflated patch near the eastern end of the area and the irregular distribution of the firecracked rock and artifactual material associated with the hearth was undoubtedly related to prolonged surface exposure. Its overall dimensions, 1.50 meters long (NS) and 1.20 meters wide (EW) probably did not reflect the original state of this feature. The majority of flaking debris recovered from this area was found in and surrounding this hearth. No artifacts were found directly in this feature as was in the case of Area 1; however, several artifacts including a

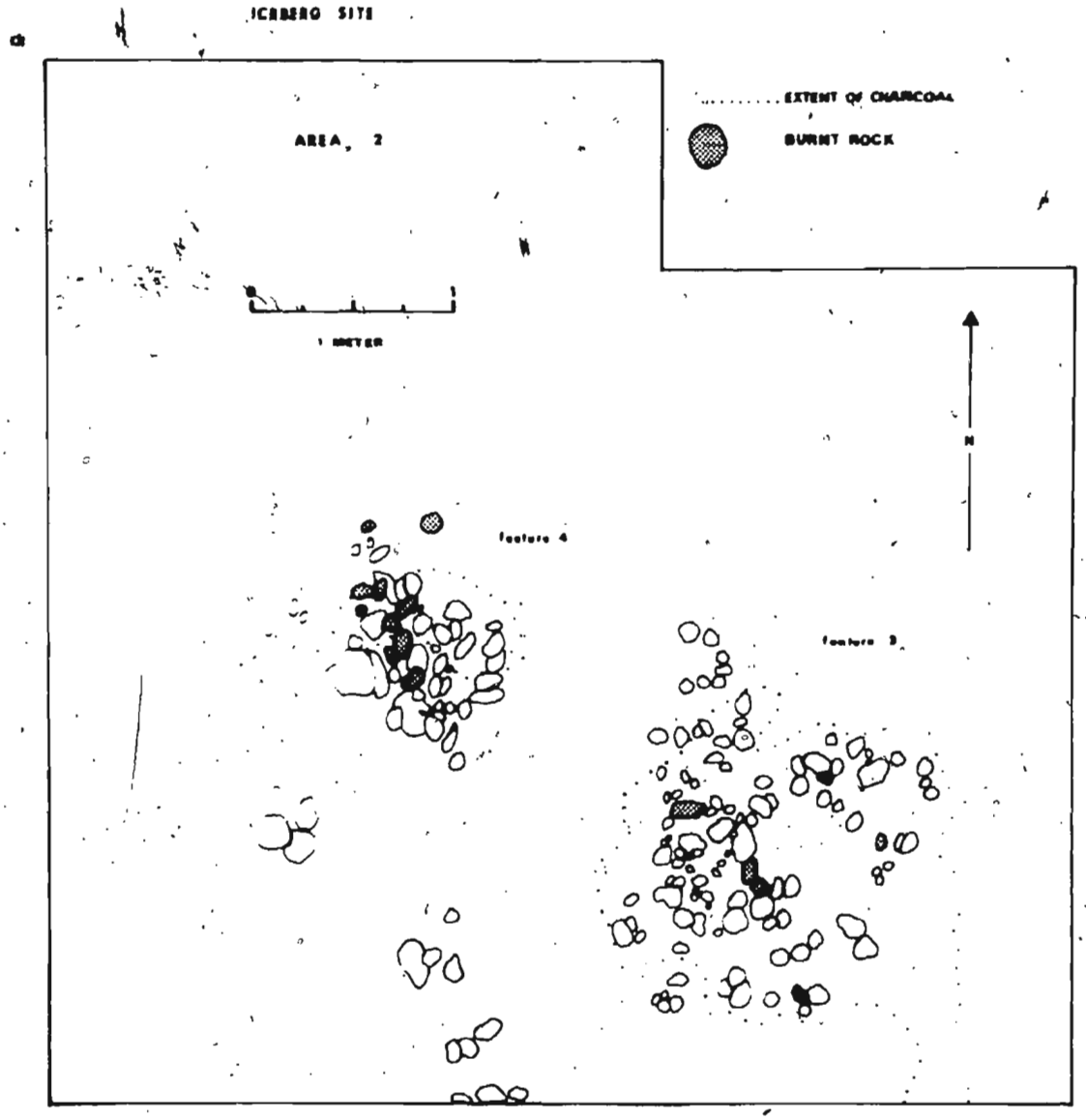

ICEBERG SITE
AREA 2
EXTENT OF CHARCOAL
BURNT ROCK
1 METER
N
feature 4
feature 3

Figure 5

large notched point were found in close enough proximity to be considered related to it. As was the case for most of the hearths found at Iceberg, charcoal was distributed generously throughout the feature, occurring at depths of 1-2 cm. in some areas. Charcoal was collected and a date of 2440 ± 75 B.P. (SI-2428), was obtained from a submitted sample.

Feature 4, which was situated about 1.50 meters to the west of Feature 3, had not been disturbed and consisted of a relatively small and dense concentration of fire-cracked rocks, disintegrated cobbles and some charcoal (Plate 2). This compact hearth was oval in outline and measured approximately 1 meter in length (NS) and .85 meters in width (EW). There were few flakes associated with this feature and no artifacts in close enough proximity to be considered definitely related to it.

Altogether only 12 artifacts were recovered from this living floor, although I suspect that the original assemblage was somewhat larger. A portion of the area had been exposed for a considerable period and there is some indication that previous surface collecting by Harp (1961, 1964), and McGhee and Tuck (1975a), may have included this area as a biface base discovered by Harp has been fitted to a tip fragment found during the 1975 excavation.

The recovered sample which included 7 bifacial knives, 1 large corner-notched point, 1 notched flake


ICEBERG SITE
FEATURE 4
JUNE 9 1975

point, 1 flake knife and 2 linear flakes, were very similar to the specimens recovered from Area 1, with the exception of the projectiles for which there was no comparable artifact.

Iceberg chert which comprised 78% of the 388 waste flakes recovered, was again the dominant raw material used, although the percentage was somewhat smaller. The remaining 22% of the debris, as well as some of the artifacts, including the projectiles, several bifacial knives and the two linear flakes, were made from various fine-grained cherts, including a distinctive patinated greyish-white variety which occurred in very high frequency in several earlier components.

In conclusion, this component represented a somewhat earlier and less intensive occupation than that found in Area 1. Nevertheless, these people probably followed an exploitative pattern similar to that of these later groups and, given the striking similarities in available artifactual materials, I would also suggest that they belonged to the same cultural tradition. Evidence is as yet insufficient to go beyond this general speculation so as to define the exact nature of this relationship, but I would not doubt if some sort of genetic or tribal entity can be assumed as well.

Area 3a

Area 3a was situated south of the gully which transects the site, about 8 meters from Area 2. Approximately 19 square meters were excavated in this area, the limits of which were defined on its eastern side by one of several granitic outcrops which occur in this area (Figure 6).

A small hearth, designated as Feature 9, was found next to this rock face, so that the bedrock formed a natural container for the fire (Plate 3). This feature was much smaller than the hearths found in the previous areas and consisted only of a compact circular concentration of burnt or disintegrated cobbles measuring approximately 80 cm. in diameter. Very few flakes were found near this feature and all artifacts recovered from this area were distributed to the west of the hearth. Charcoal occurred only in minute quantities and one gets the general impression that this hearth received very little use.

Feature 5, a dense but shallow concentration of chipping detritus and charcoal encompassing an area of 1.5 square meters, was found to the west of this hearth. No rocks, except for several large boulders which lay scattered about, were found with this feature, however, the vast quantities of charcoal and burnt sand associated with it suggests that we are probably dealing with some sort of hearth. Approximately 70% of the total artifact assemblage recovered from this living floor was associated

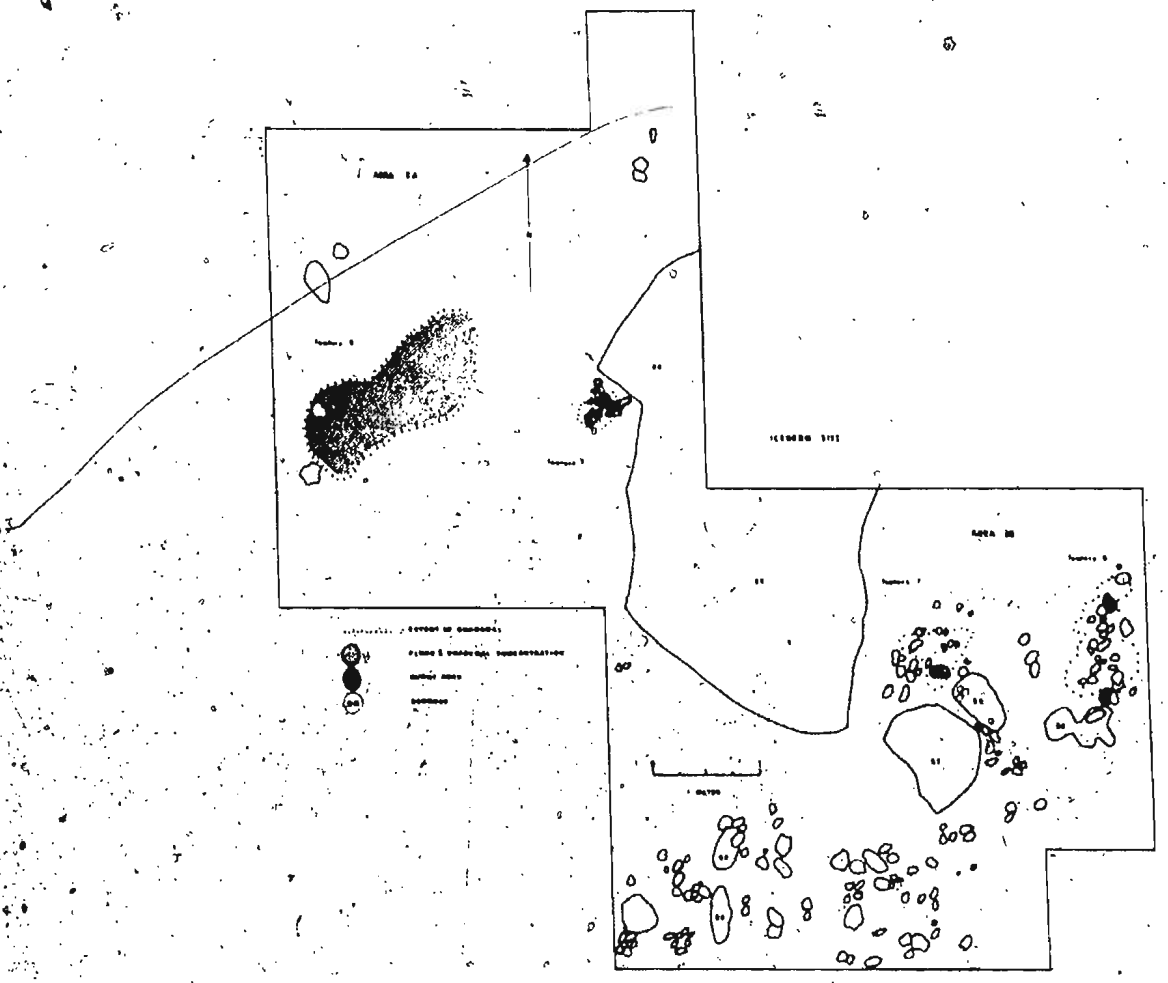


Figure 6


ICEBERG SITE
FEATURE 9
JUNE 12 1975

with this feature; eleven directly in the flake concentration and four within 50 cm. of its edges.

Altogether only 18 artifacts were recovered from this area. Bifaces accounted for the largest single class of tools, although seven of the eight specimens were too fragmentary to be assigned to any particular type. The single complete specimen was leaf-shaped and very similar to those found in Area 1 and 2. Projectiles, which accounted for another 27% of the assemblage included 4 small side-notched basal fragments and 1 ovate flake point. The remainder of the assemblage was made up of 3 flake scrapers, 1 flake graver and 1 retouched flake.

Iceberg chert again comprised the dominant raw material used, accounting for 94.6% of the 967 flakes recovered from this area. The remaining 5.4% was comprised of a variety of cherts, some quartz and a little quartzite.

As in other areas, the lithic debris was comprised mainly of small thinning flakes and this along with the lack of cores, preforms and implements such as hammerstones and anvils, is indicative of little or no involvement in large scale manufacturing. On the other hand, the tool/flake ratio in this area was 1/53, which relatively speaking was somewhat higher than that found in other components at the site; and while this alone does not indicate a major workshop area, it does suggest greater involvement in this

activity, probably in terms of secondary manufacturing such as shaping and resharpening.

Unfortunately, no date was obtained for this area; however, we are definitely dealing with much the same type of small hunting camp found in the other areas of the site, and on the basis of favourable artifact comparisons with these other assemblages, I do not doubt that it was part of the same cultural tradition, probably dating between 2700-2500 B.P.

Area 3b

Area 3b was situated southeast of the granitic outcrop which marked the limits of Area 3a and covered an area of about 16 square meters (Figure 6).

Two hearth features were found fairly close together in the northern section of the excavated area. Both were oriented roughly north to south and were surrounded by bedrock on their eastern and southern limits. The larger (Feature 7), was roughly circular in outline measuring 50 cm. in diameter; while the other (Feature 6) was more amorphous in outline with a length of 1 meter (NS) and width of 40 cm. (EW). Both were comprised of assorted fire-cracked and burnt rocks, many of which appeared only as stains. Feature 7 was partially excavated during testing in 1974 and the charcoal sample collected yielded a date of 3055 ± 75 (S1-2312). A sample collected in 1975 gave a date of 18,730 ± 850 (S1-2431), and can obviously be

discounted as representative of the site occupation.

To the southwest of the hearths the surface was covered with scattered rocks. Some charcoal was scattered amongst these stones suggesting hearth features that had been significantly disturbed; however, no particular configurations could be discerned.

The domestic debris associated with this living floor was somewhat different from that found in the other areas at Iceberg. To begin with, Ramah chert comprised only 13.2% of the raw materials used; while other cherts, the majority of which was a distinctive patinated whitish variety, accounted for 86% of the waste flakes and over 80% of the artifactual material. Furthermore, the artifact assemblage itself, which included 5 bifacial knives of several varieties, 5 retouched flakes, and 4 linear flakes, was quantitatively smaller than that found in other areas both in terms of the absolute number and the variety of artifact classes and forms. Finally, comment should be made on the artifacts themselves, for although they fall within the general range of 'type' categories found in the other components, they were on the whole somewhat larger proportionally than the majority of the implements in each particular category.

These distinctions made suspect any but the most general cultural associations with the other components

previously discussed. On the other hand, this occupation was dated somewhat earlier than the majority of Iceberg components and these differences could be due to temporal separation. The cultural debris suggests that we are dealing with the same type of small camp situation in which the people were engaged in limited hunting and domestic activities for a short period and time, and despite the noted size differences in the artifacts, I do not doubt that this was an earlier variant of the same cultural tradition to which the majority of components at Iceberg have been assigned.

Area 4

This locus adjoined Area 3 at its southwestern corner; however, the major portion of this living floor was situated about 3 meters to the south of this point, encompassing a total area of about 45 square meters.

Two separate living floors were distinguishable in this area; however, the exact boundaries of these components could only be approximated due to the erratic distribution of the rocks and the irregular outline and amorphous boundaries of many of the features. Overlap did occur, although no stratigraphic differences could be detected and material from both components was recovered at the same level (just below the peat at a depth of 1-4 cm.). On the composite floor plan (Figure 7), a dotted line marks what

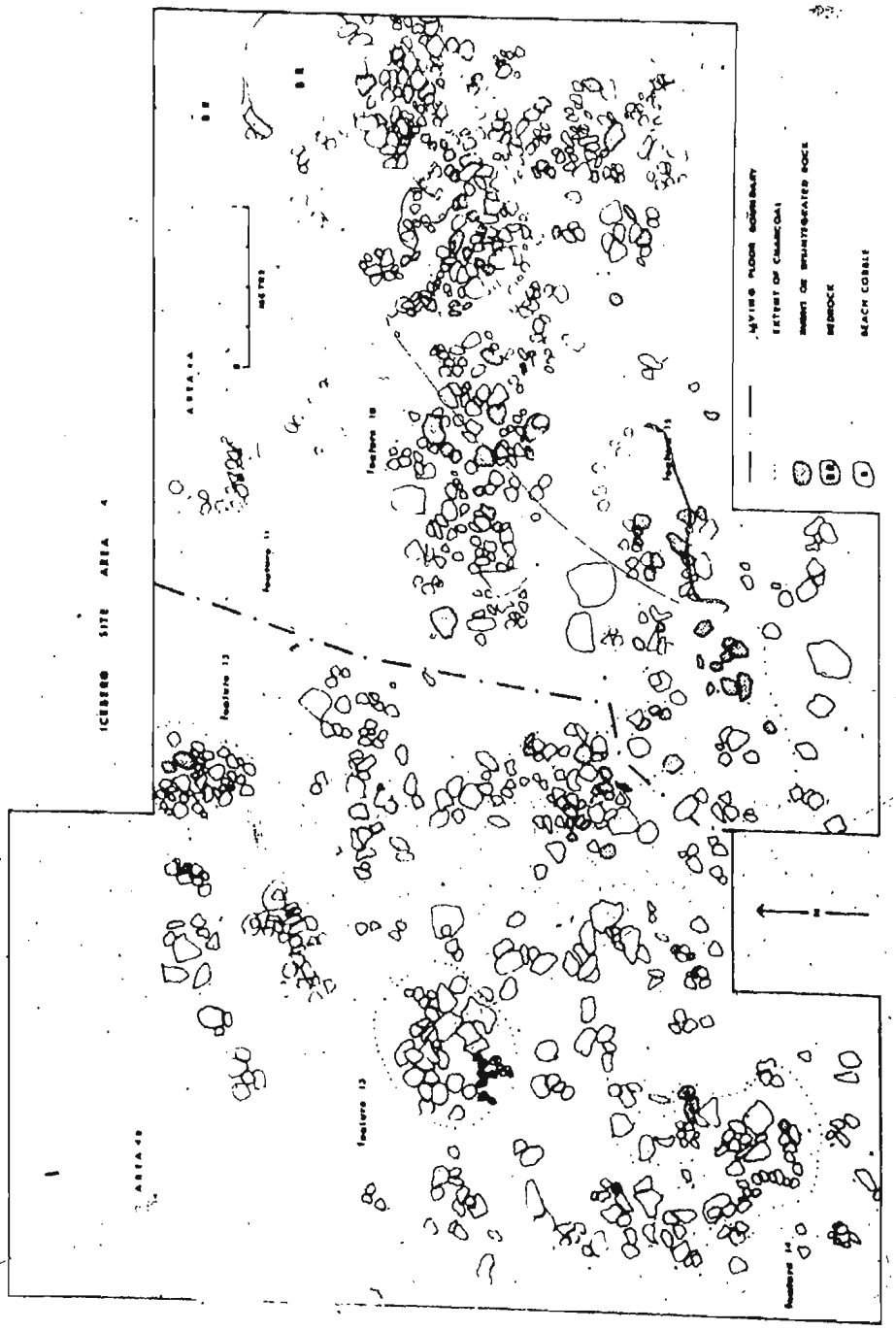


Figure 7

is presumed to be the general boundaries of each of these occupations.

The largest component, comprising approximately 24 square meters was situated in the eastern section of the area. Only three hearth features could be discerned in this area, but the large amount of scattered rock and charcoal surrounding them indicates that other hearths, now obliterated, once existed in this area as well.

Feature 10, which was the largest hearth encountered at Iceberg, lay in the centre of the living floor (Plate 4). It was roughly rectangular in outline, measuring 4 meters in length (EW) and 1-1.5 meters in width (NS). Its length suggests that we are probably dealing with more than one feature; however, no distinct borders could be detected which would suggest such separation at this time. Fire-cracked and completely burnt cobbles and boulders were densely concentrated along the entire length of this feature, but the underlying sand was not appreciably burnt and again there was no evidence of a pit or depression. Over 60% of the flakes and 75% of the artifacts associated with this living floor were recovered within or near this feature. Large amounts of charcoal reaching depths of 1-2 cm. were interspersed amongst the stones, and a sample collected yielded a date of 2870 ± 60 B.P. (S1-2429).

A smaller hearth, designated Feature 11, was situated near the northern wall and consisted of a small


ICEBERG SITE
FEATURE 10
23 JUNE 1975

semicircular arrangement of slightly burnt cobbles measuring 50 cm. in diameter. Few flakes and no artifacts were associated with this feature and only a small amount of charcoal, occurring as a very shallow lense surrounding the feature, was recovered. Except for the seemingly purposeful arrangement of stones and its isolation from the other hearths in this area, this feature could possibly be mistaken for nothing more than scattered rocks belonging to another hearth.

Feature 15 was situated near the southern wall about 15 meters from the southwestern corner of Feature 10. It was another small shallow sand hearth measuring approximately 70 cm. in diameter and consisting of a diffuse arrangement of firecracked cobbles interspersed with charcoal and a few flakes. The position of this feature definitely suggested an association with this particular living floor; however, the two artifacts found directly in this feature indicated otherwise. These specimens, a leaf-shaped white chert biface and a linear flake of brown chert, are unlike the other artifacts in this area both in terms of raw material and form. On the other hand, these same raw materials and almost identical artifact forms characterized the domestic debris of Area 3a. Furthermore, the date of 2920 ± 60 B.P. (SI-2430) which was obtained for this feature falls well within the range already indicated for Area 3b. Although the evidence is tenuous, I would suggest that these

components are probably related more to each other than to the other occupations in these areas.

The majority of domestic debris recovered from this living area was not unlike that found in Area 1, 2 and 3a, and consisted of 30 chipped stone artifacts including 10 bifacial knives, 5 side-notched projectile fragments, 1 reworked point base, 2 endscrapers, 3 flake scrapers, 1 graver, 2 linear flakes, and 6 retouched flakes. About 80% of the artifacts and 71% of the 357 flakes recovered in the area were manufactured from Ramah chert. The other raw materials included assorted fine-grain cherts (20%), patinated whitish chert (3%) and quartzite (6%). Again, the chipping debris was comprised mainly of small thinning flakes and the tool/flake ratio was only 1/14.

It was clear from an examination of the content, size and pattern of domestic debris, that the occupants of this site were probably engaged in the same limited range of hunting and domestic activities attributed to the other components. Unfortunately, the erratic and scattered distribution of the rocks and charcoal throughout the area made it impossible to discern the exact size of this occupation. The distributional pattern suggests disturbance, probably related to the rearrangement and scattering of features as a result of repeated occupations. Given the small amount of artifactual debris and the homogeneity of

the material I would suggest that that area was occupied no more than two or three times by the same or at least closely related groups of people.

The second component, distinguished primarily on the basis of different artifact and raw material associations, was situated on the western side of the area and was approximately 21 square meters in extent. A large number of rocks and cobbles was scattered over this living floor; however, no pattern of tents or other structures could be discerned. The only features that could be distinguished were four shallow sand hearths distributed in a random fashion over a 13 meter area. Again, there were other scattered concentrations of firecracked rocks and charcoal which may also have been hearths at one time; however, their erratic distribution did not corroborate this possibility.

Feature 12 was situated near the northern wall on the boundary between the two components; however, the lack of any artifact associations and its closer proximity to the other features in this part of the living floor encouraged me to include it in this second component. It consisted of a small concentration of firecracked rocks measuring 65 cm. in length (NS) and 40 cm. in width (EW). No artifacts and only minute quantities of charcoal were associated with this feature. It appears to have received little use.

Just south of this feature was a larger concentration of firecracked and disintegrated cobbles (Feature 13), measuring 85 cm. in length (EW) and 75 cm. in width (NS), (Plate 5). No artifacts were found near this feature but large quantities of charcoal and flakes were recovered. A small cache of 12 cracked quartzite cobbles found near the southern edge of the hearth probably represent a stash of raw materials.

About 1 meter to the south again, was another hearth, Feature 14, which measured 65 cm. in length (NS) and 75 cm. in width (EW). Little charcoal and no artifacts were associated with this feature.

The domestic debris recovered from this living floor was very distinctive in that it consisted entirely of bifacial knives and biface preforms. These bifaces included many of the 'types' found in the other areas including lanceolate, ovate, leaf-shaped and bipointed forms; however, the specimens from this area were manufactured exclusively from pinkish or red quartzite and were usually thicker and of cruder workmanship than the others in their class. In the lithic debris as well, quartzite comprised the dominant raw material used, accounting for over 70% of the 664 flakes recovered. The remaining 25% were made up of assorted cherts and some Ramah.

This component had an artifact density of less than half that found in the other areas at Iceberg and, as such,


ICEBERG SITE
FEATURE 13
23 JUNE 1975

seems to represent a much less intensive occupation than was the case for the majority of components. Unfortunately, no date was obtained for this area and without any diagnostic artifacts, such as projectiles, with which to compare the assemblage, it is difficult to ascertain a cultural designation for this unit. I shall comment on this problem further in the following chapter, but for now the relationship of this component to the rest of the site must remain uncertain.

Area 5

Area 5 was located in the most southern section of the site about 25 meters from Area 4 and over 60 meters from Area 1. The excavated unit was roughly square in outline and covered about 29 square meters (Figure 8).

A small deflated patch occurred in the northeastern corner of this area and prior to excavation several artifacts, including a stemmed flake point and several biface fragments, were collected from the surface. The remainder of the living floor was overlain by a peat and sod deposit that ranged from a very thin 2-4 cm. layer in the northern section to nearly 20 cm. in the southern wall.

The cultural debris associated with this living floor was mixed and consisted of large numbers of erratically distributed rocks and charcoal in association with a wide variety of artifactual materials, probably related to

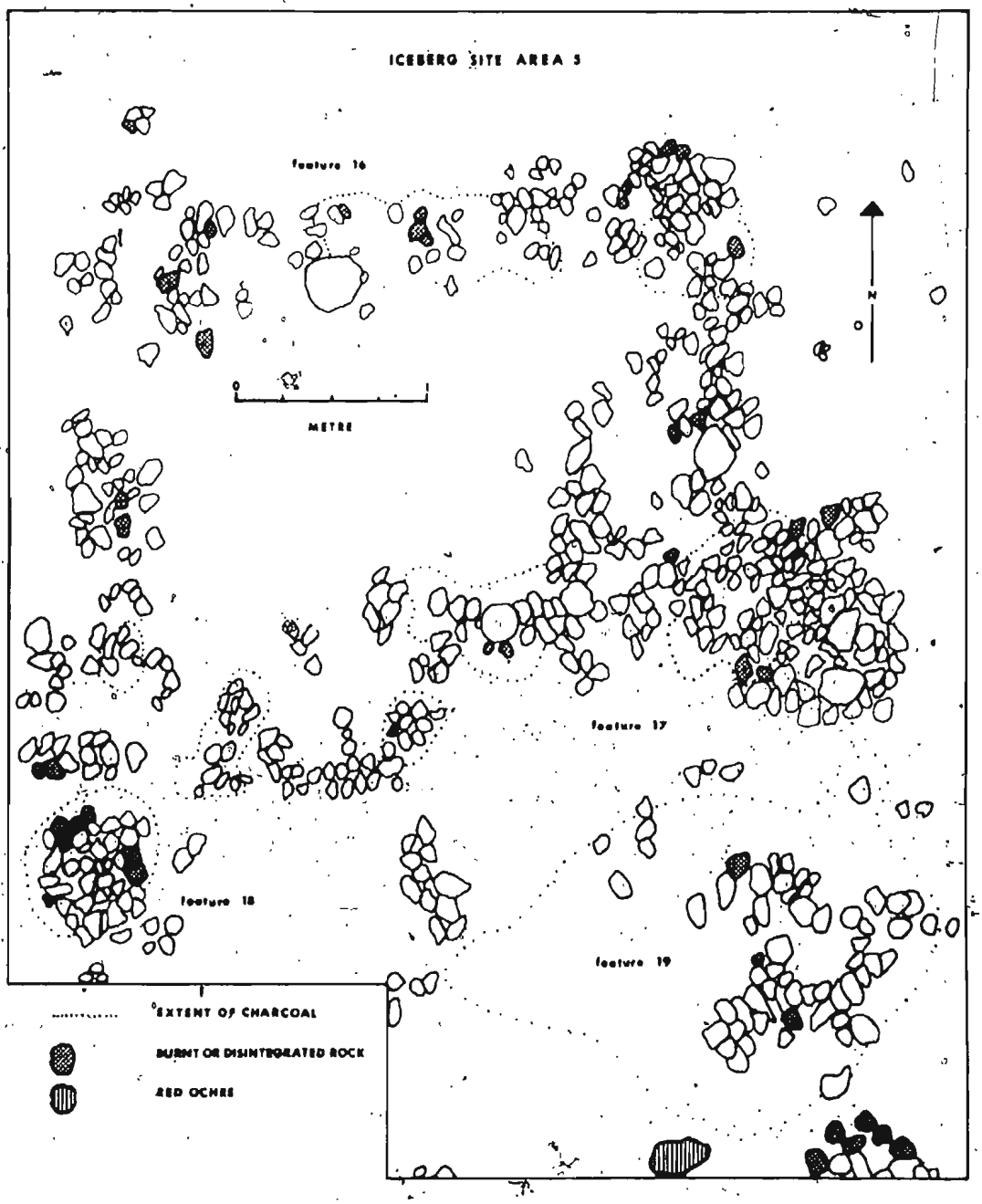

ICEBERG SITE AREA 3
feature 16
feature 17
feature 18
feature 19
METRE
N
EXTENT OF CHARCOAL
BURNT OR DISINTEGRATED ROCK
RED OCHRE

Figure 8

several different occupations.

A total of 23 artifacts were found, including 9 bifaces, 3 side-notched projectile points, 1 lanceolate projectile or knife, 1 flake knife, 6 retouched flakes, 1 linear flake, and 2 utilized flakes. Nearly 90% of the flaking and artifactual debris was composed of cherts of which 56% was a greyish/white patinated variety very similar to that found at the Black Rock Brook and Graveyard sites in southern Labrador (McGhee and Tuck, 1974: 56). The distinctive Ramah chert which marked most of the other areas at this site accounted for only 11% of the raw materials.

Four separate hearth features were discerned, although other scattered rocks and charcoal were probably remnants of similar features since obliterated by post-occupational disturbance.

Feature 16 was located near the southern periphery of the area and consisted entirely of completely disintegrated and burnt rock that now existed only as a stain. Its outline, derived from the distribution of charcoal which occurred at depths of 1-2 cm. along its entire length, was roughly oval, measuring about 1.30 meters in length (EW), and 50 cm. in width (NS). Few flakes and only one artifact, a leaf-shaped biface, could definitely be associated with this hearth.

A little to the south was another hearth (Feature 17) which consisted of a rather large, amorphous agglomeration

of firecracked rocks and cobbles, a great deal of charcoal and a few flakes. Its overall length was nearly 3 meters (EW) while its width was about 1 meter (NS). The size and shape of this concentration indicates that we are probably dealing with more than one hearth feature; however, the continuous and irregular distribution of rocks, flakes and charcoal preclude separation into more than one hearth at this time. No artifacts were found directly in this feature; although three specimens, including a large side-notched projectile made of Ramah chert, a small side-notched point and a bifacial knife, were found nearby. A date of 2820 ± 75 B.P. (SI-2432) obtained from a charcoal sample taken from this hearth can probably be applied to these specimens.

Feature 18 was situated to the west of the previous hearth and consisted of a small compact concentration of firecracked cobbles, roughly circular in outline, with a diameter of approximately 70 cm. Charcoal was distributed within and near the periphery of this rock concentration but there were few flakes and no artifacts in association.

Feature 19, the last feature excavated in this area, was situated in the southeastern corner of the site and was somewhat distinctive in that it appeared to provide evidence of a second and earlier occupation in this area.

The hearth itself was about 1.40 meters long (NS) and 1.20 meters wide (EW), and consisted of a roughly

circular arrangement of rocks and cobbles in association with abundant charcoal (Plate 6). A small patch of red ochre was scattered in the sand near the northern edge of this feature; but it was otherwise identical to the shallow sand hearths found throughout the site.

A charcoal sample collected from this hearth yielded a date of 3470 ± 50 B.P. (S1-2433), and although this was first thought to be unrepresentative of the site occupation, closer examination revealed other evidence which gave support to this claim. Specifically, a distributional analysis of the lithic debris revealed that over 85% of the grey chert material recovered from this area was concentrated in the 7 square meter area in the southwest corner where Feature 19 was situated. This material did occur in other areas at the Iceberg site; however, it has only been found in such large concentrations at the Black Rock Brook and Graveyard sites, which incidentally, have a range of dates that compares well with the early date given for the Iceberg component.

The evidence is slim, nevertheless on this basis I would suggest that this hearth and associated flake debris could be attributed to a second older occupation by a people who may have been contemporaries or even related to the people at Black Rock Brook and Graveyard.

Unfortunately, an examination of the artifactual material recovered from the living floor does little to

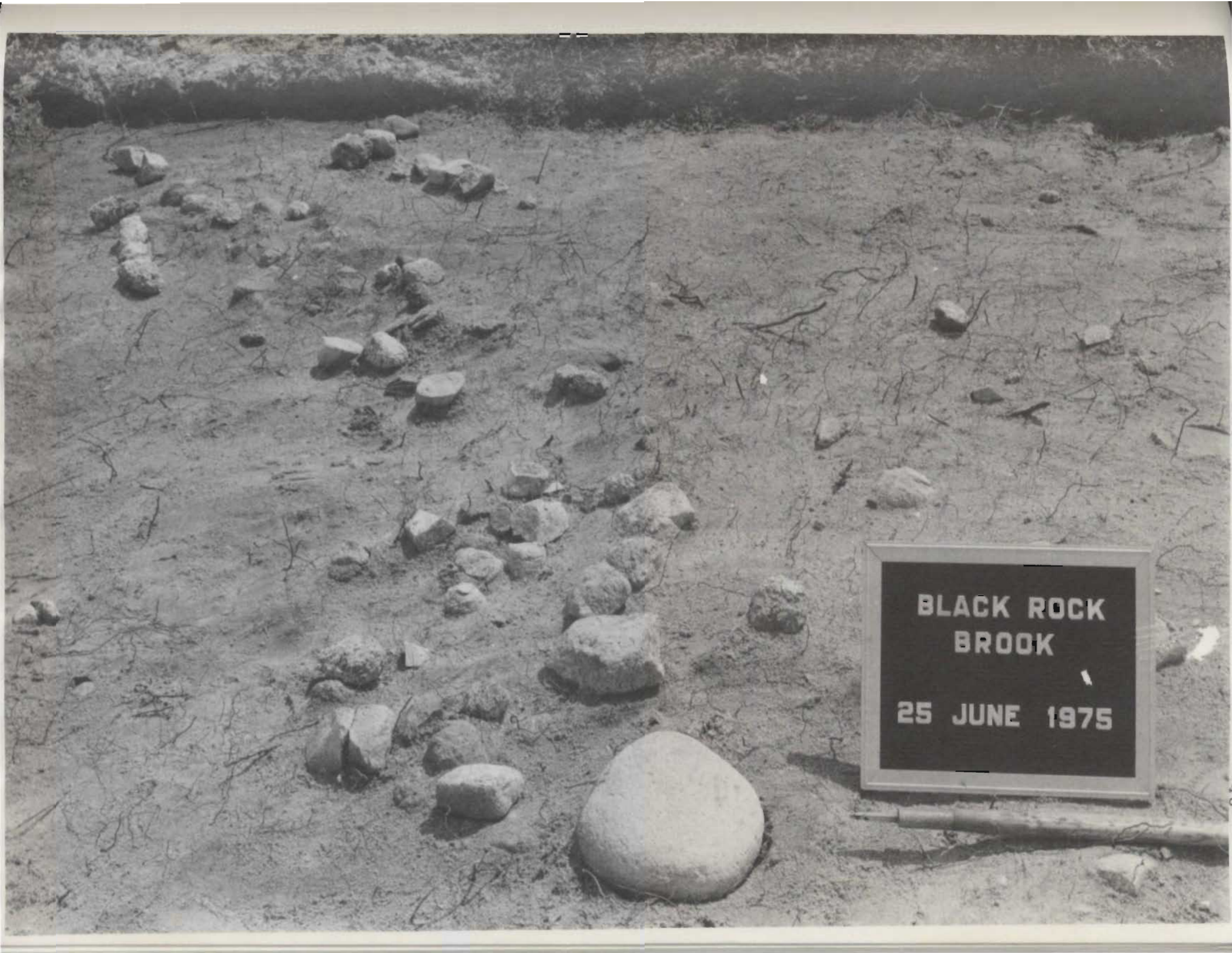

ICEBERG SITE
FEATURE 18
25 JUNE 1975

clarify matters. The domestic debris was quite varied in terms of artifact form and raw material used, and as such could have been produced by different groups of people. On the other hand, it was so randomly distributed that no pattern indicating particular cultural areas or separate components could be detected. Evidence suggests that this area was probably occupied by at least two culturally related but temporally disparate groups of people, and that these occupations consisted of 2-3 family groups engaged almost exclusively in hunting and related domestic activities.

2. The Black Rock Brook Site

A single large living floor of approximately 36 square meters in extent represented the most intensive area of occupation at this site. The central focus of this area was a large bed of diffusely scattered cobbles and rocks oriented longitudinally in an east/west direction, and measuring maximally 3 meters long and 1 meter wide (Plate 7).

That this feature represented one or more hearths was indicated by the presence of charcoal, stained sand and a few firecracked rocks; however, the erratic distribution of these materials made it impossible to discern its original shape or to designate separate hearth features within this configuration. Some charcoal, about 80% of the flaking debris, and over 90% of the artifacts recovered from this site were directly associated with this feature. Charcoal was collected from the eastern and western ends of the


BLACK ROCK
BROOK
25 JUNE 1975

feature yielding dates of 2960 ± 70 (SI-2437) and 3500 ± 50 B.P. (SI-2438), respectively; however, again the diffuse arrangement of the rocks and artifactual debris precluded the delineation of discrete components.

Most conspicuous at this site was the high frequency of chipping debris, which occurred as a dense layer up to several centimeters thick in some areas. The tool/flake ratio was estimated at about 1/100 (if not more) and this, along with the presence of a large number of preforms, broken cobbles and a grindstone, indicates that tool manufacture and maintenance were very important if not primary activities at this campsite. This was not exclusively a workshop area, however, and the large number of used and broken bifaces, flake tools, and the few projectiles, attests to involvement in hunting and other domestic activities as well.

Altogether, 95 artifacts were recovered from this site, including 22 lanceolate bifaces and 10 preforms, 5 projectile point fragments, a drill and a whetstone, 8 endscrapers, 34 linear flakes and 14 retouched flakes. The uniformity of this artifactual debris in terms of form and raw material was striking and regardless of the number of occupations represented at this site, they all undoubtedly involved groups of closely related peoples who shared a common technological tradition for many hundreds of years.

The majority of these implements (the exception being a single quartz stem fragment), as well as all the flaking debris, were made of a distinctive greyish-white patinated chert similar to that found in other earlier and coeval sites in southern Labrador, i.e. Forteau Point, Graveyard (McGhee and Tuck, 1975a), and Iceberg, Area 3b and 5 (this volume). These components are also identified by and share the same basic artifact forms, and strong similarities can be noted in the technology, style and frequency of the lanceolate bifaces, the linear flakes, the scrapers and the projectile points. I shall discuss the nature and implications of this relationship in subsequent chapters, it being sufficient at this point to note that the Black Rock Brook occupants were probably part of a broader cultural and temporal horizon that was manifest in southern Labrador during the first and second millennium B.C.

CHAPTER III

RAW MATERIAL AND ARTIFACT DESCRIPTIONS

1. Raw Materials

All artifacts recovered from the Iceberg and Black Rock Brook sites were made of stone; however, a marked distinction can be noted in the type and/or frequency of lithic materials utilized by the various groups during the 1,500 year period of occupation in these areas. The distribution and frequency of materials is presented in Table 1a and 1b.

White Chert

This coarse patinated chert, which varies in color from white to dark grey, occurs locally within a thin metamorphic limestone deposit that overlies the granite basement in the Straits; and it is likely that the source of this material was one of the many outcrops which are known just south of Bradore, on Belle Isle, and in western Newfoundland (Bob Stevens, personal communication).

Small amounts of this material are known from most components at these sites; however, it occurs in its greatest frequency within the earliest components represented at the Black Rock Brook site, and Areas 5 (south) and 3b at the Iceberg site, where it comprised 56-100% of the lithic debris and 86-98% of the artifactual material.

Ramah Chert

Ramah chert, which has already been discussed in some detail by Fitzhugh (1972: 39-44), is a translucent grey silicate that occurs within an extensive stratigraphic deposit that runs from Saglek south to Hebron.

This material formed the principal raw material for the "Maritime Archaic" peoples in Hamilton Inlet as well as the later Point Revenge cultures in this area (Ibid.); however, its appearance as a dominant raw material in several components at the Iceberg site represents the first time that this material was used extensively by the local populations in southern Labrador. At Iceberg it was distributed in varying quantities amongst most assemblages, occurring maximally in Area 4a where it accounted for over 70% of the lithic debris and 60% of the artifactual material. The implications of the introduction of this raw material in terms of population movement and subsequent technological development are considerable and shall be discussed in their appropriate contexts in the following chapter.

Iceberg Chert

This distinctive material designated for the purpose of this paper as 'Iceberg chert', is a translucent silicate which looks very much like Ramah chert except that it is streaked with varying amounts of a dark grey or black material which gives it a marbled or even cloudy appearance.

The exact provenance of this material is unknown; although the streaking, indicative of a metamorphic origin, definitely precludes the possibility that it was recovered from the chert deposits in northern Labrador. Metamorphic chert deposits which may contain similar materials do exist in the interior of Labrador near Labrador City, as well as along the coastal regions of southern and central Labrador. (Ron Smith, personal communication), and it is possible that this material was recovered from the latter regions or from ice-rafted boulders that were carried from the interior.

Whatever the case, this material was apparently being used by the Iceberg residents by at least 2500 B.P., at which time it occurred in small amounts (4%) as a supplement to Ramah chert. Somewhat later in time and continuing into the Christian era, its frequency increased so that in Areas 1, 2 and 3a, where it comprised from 78-95% of the lithic debris and 32-93% of the artifactual remains, it had actually replaced Ramah chert as the dominant raw material.

Quartzite

Red or pink quartzite, which is widely available in Labrador in cobbles, other glacial deposits, as well as in the basement rocks of the region, was used almost exclusively in only one area at the Iceberg site (Area 4b), where it comprised 70% of the lithic debris and 100% of the artifactual materials recovered.

TABLE 1a

RAW MATERIAL DISTRIBUTION AND FREQUENCY - DEBITAGE

Iceberg	White Chert		Ramah Chert		Iceberg Chert		Quartzite		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%
Area 1					655	92.0			61	8.0
Area 2	38	10.0			304	78.0			46	12.0
Area 3a	2	.20			915	94.6			50	5.2
Area 3b	168	56.3	39	13.2					91	30.5
Area 4a	10	3.0	255	71.0			21	6.0	71	20.0
Area 4b			84	13.0			455	71.0	105	16.0
Area 5	230	56.0	42	11.0					135	33.0
B.R.B.	2000	100.0								

TABLE 1b

RAW MATERIAL DISTRIBUTION AND FREQUENCY - ARTIFACTS

Iceberg	White Chert		Ramah Chert		Iceberg Chert		Quartzite		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%
Area 1					52	93.0			4	7.0
Area 2					5	42.0			7	58.0
Area 3a			9	50.0	6	32.0			3	18.0
Area 3b	12	86.0							2	14.0
Area 4a	1	3.0	18	80.0	7	4.0			4	13.0
Area 4b							12	100		
Area 5			7	30.0					16	70.0
B.R.B.	93	98							2	2.0

Other

Small amounts of assorted fine-grained cherts, quartz and quartzite accounted for the remainder of the material found in these assemblages. All were undoubtedly obtained from the many available local sources.

2. Artifact Descriptions - The Iceberg Site

The artifacts described herein were obtained from five separate areas distributed over the .30 hectare site and represent the remains of at least nine occupational units spanning a period of over 1,000 years.

The number of artifacts is very small and the range of variation is somewhat narrow with most areas sharing the same basic artifact forms, and temporal separation accounting for the small variation that does exist. To avoid unnecessary repetition, then, as well as to give a picture of cultural homogeneity through this period (where applicable), the artifacts from Iceberg have been described together rather than being grouped according to their stratigraphic and/or cultural associations.

The entire sample of 165 artifacts are of chipped stone and can be divided on the basis of chipping technique into two broad categories: a unifacial series and a bifacial series. The bifacial series includes all those specimens which have been flaked on both surfaces, usually with some marginal retouch. Within this division several classes have been designated on the basis of both formal and functional

TABLE 2

ARTIFACT DISTRIBUTION - THE ICEBERG SITE

	Area 1		Area 2		Area 3a		Area 3b		Area 4a		Area 4b		Area 5		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Biface Series																
Bifaces																
Large Lanceolate	1		1				1				1				4	
Small Lanceolate	4		1												5	
Large Ovate											1				1	
Leaf-shaped	6				1		2		4		4		2		19	
Large Triangular							1								1	
Small Triangular	1														1	
Bipointed	1										1				2	
Notched Biface									1						1	
Preforms											2				2	
Fragments	15		5		7		1		5		3		7		43	
subtotal	28	(50)	7	(58)	8	(44)	5	(36)	10	(34)	12	(100)	9	(39)	79	(47)
Projectile Points																
Large Lanceolate													1		1	
Small Lanceolate	4														4	
Large Corner-Notched			1												1	
Large Side-Notched													1		1	
Small Side-Notched					1				1				1		3	
Broad Side-Notched	1												1		2	
S.N. Basal Frags.	2				3				3						8	
Blade Fragments									1						1	
subtotal	7	(13)	1	(8)	4	(22)			5	(17)			4	(17)	21	(13)

TABLE 2 (Continued)

	Area 1		Area 2		Area 3a		Area 3b		Area 4a		Area 4b		Area 5		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Miscellaneous																
Perforator	1														1	
Reworked Points									1						1	
subtotal	1	(2)							1	(3)					2	(1)
Uniface Series																
Flake Points	6		1		1										8	
Flake Knives	1		1										1		3	
End Scrapers									2						2	
Concave Scrapers	2														2	
Flake Scrapers	5				3				3						11	
Flake Gravers					1				1						2	
Linear Flakes	4		2				4		2				1		13	
Retouched Flakes	2				1		5		6				6		20	
Utilized Flakes													2		2	
subtotal	20	(35)	4	(34)	6	(34)	9	(64)	14	(46)			10	(44)	63	(39)
Grand Total	56	(34)	12	(8)	18	(11)	14	(8)	30	(18)	12	(7)	23	(14)	165	(100)

attributes. These include bifaces, projectiles of both notched and lanceolate forms, and a miscellaneous class for those specimens which do not fit into any of the above categories.

The unifacial series includes all those specimens with unifacial surface and edge retouch, although bifacial marginal retouch does occur on some specimens. This group includes formed unifaces such as flake points, scrapers, and linear flakes, as well as other amorphous flake tools that probably served a variety of functions. In both series, where necessary, these classes were further subdivided on the basis of formal attributes so as to demonstrate the variability of forms which existed within one class.

Bifacial Series

Bifaces

The 79 artifacts in this class included all those specimens, usually without a distinctive haft element, whose form and blade margins suggested use as knives rather than projectiles. Those of poorer workmanship, with partial surface and edge retouching, were probably preforms for similar tools and the single notched specimen appears to have been made from a broken point.

The specimens were grouped into eight categories on the basis of formal attributes so as to demonstrate the range of variability that existed within this class; with a separate

category for the miscellaneous specimens whose fragmentary condition precluded assignation to any of the others.

Most of the formal categories are obvious in that they evoke an image of the true shape of the object, i.e. bipoint, triangular, etc.; however, others such as the lanceolate, ovate and leaf-shaped categories are more ambiguous and need some definition. McGhee and Tuck (1975a: 149) have proposed a classification system in which the lanceolate category includes all those specimens with a length greater than twice the width, and the ovate category includes all those specimens with a length less than twice the width. In this case, however, a large quantity of implements had a length/width ratio which straddled these definitions so that in shape they were probably closer to each other than to either a true ovate or lanceolate form. Therefore, to better reflect this 'real' category, I classified these implements as leaf-shaped and qualified the lanceolate and ovate definitions to include only those specimens on the extreme end of either scale. In the following discussion, then, the lanceolate specimens include only those specimens with a length/width ratio of about 3.0, while the ovate specimens have a ratio of about 1.6 and the leaf-shaped specimens are closer to 2.0.

Large Lanceolate: 4 specimens including 3 basal and 1 tip fragment. Plate 12c, Plate 13a, Plate 14a.

The fragmentary remains of this type exhibit straight, symmetrical sides, straight thinned bases and the single tip is pointed. Retouching occurs along existing lateral margins and is bifacial except in one specimen. Cross sections are biconvex (1) or plano-convex (3). Materials used included whitish quartzite (20%), black chert (20%), white patinated chert (20%) and pink quartzite (20%). These specimens were found in Areas 1, 2, 3b, and 4b, respectively.

Dimensions: Width: 35-45 mm. (41 mm.)
Thickness: 8.0-12 mm. (9.3 mm.).

Small Lanceolate: 5 specimens including 2 complete, 2 basal and 1 tip fragment. Plate 11a, Plate 12a, Plate 13b.

The complete specimens in this category were reconstructed from broken pieces, the majority of which were found close together. One specimen which consisted of a basal portion found by Harp (1964: 197), and a tip found during the course of my own 1975 excavations, was particularly interesting as it confirmed earlier held suspicions that the Iceberg site was indeed the same as Harp's Diable 2 site.

These long, narrow bifaces are asymmetrical in outline with straight to slightly convex sides and pointed tips. The bases are straight (2), or slightly rounded (3) and have been thinned. Retouching occurs along the lateral margins and in cross section they are all plano-convex. The three

Iceberg chert specimens and the single mottled chert specimen were found in Area 1; the remaining specimen, again made of Iceberg chert, was found in Area 2.

Dimensions: Length: 53-88 mm. (73.3 mm.)
Width: 18-27 mm. (23.6 mm.)
Thickness: 5.0-8.00 mm. (6.2 mm.)
Length/Width ratio: 2.82-3.25 (3.1).

Large Ovate: 1 incomplete specimen. Plate 16a.

This broad biface was reconstructed from many broken fragments and is only partially complete with its base and portion of the medial section still missing. The outline appears to be symmetrical, the sides are convex and the tip is rounded. This biface is thick, roughly worked and still bears a portion of the original flake scars on the ventral surface. The lateral edges are not retouched but do exhibit use wear. In section this specimen is biconvex and the material used was a pinkish-red quartzite. It was found scattered over a fairly wide area in Area 4b.

Dimensions: Length: 70 mm. (approximately)
Width: 41 mm.
Thickness: 14 mm.
Length/Width ratio: 1.7.

Leaf-shaped: 19 specimens, including 16 complete and 3 basal fragments.

Plate 11c-g, Plate 12b, Plate 13h, Plate 14b-c, Plate 15a-d, Plate 16c-f, Plate 17a-b.

The specimens in this category straddle the definition of both lanceolate and ovate as defined earlier, as they have a length/width ratio range of 1.7-2.3 and an average of 2.0

These bifaces, then, can more accurately be described as leaf-shaped in outline with asymmetric convex lateral margins converging to pointed or slightly blunted tips. The bases, except in one case, have been thinned and exhibit straight (8) or slightly rounded margins (8).

Nine of the specimens exhibit fine edge retouch along one or both lateral margins producing a sharp edge suitable for cutting, and this group undoubtedly functioned as knives. One of these specimens has been broken diagonally just above the midpoint and retouched unifacially to produce an oblique cutting edge.

The remaining seven bifaces, especially the two quartzite specimens are proportionally thicker, with an average thickness of 9.0 mm. as opposed to 5.0 mm. for the knife forms. These specimens are roughly worked and exhibit only slight and discontinuous edge retouch. They may have been preforms for similar knife forms although edge wear indicates that they had been used in their present state.

Cross sections are asymmetrically biconvex except for one specimen which is plano-convex. These forms were distributed as follows: Area 1, 6 specimens made of Iceberg chert; Area 3a, 1 Iceberg chert specimen; Area 3b, 2 specimens made of white chert; Area 4a, 2 of Iceberg chert, 1 of Ramah chert, and 1 of white chert; Area 4b, 4 specimens of quartzite; and Area 5, 1 of a dark grey chert, and 1 of mottled blue chert.

Dimensions: Length: 46-70 mm. (59 mm.)
Width: 21-34 mm. (25.5 mm.)
Thickness: 4.0-11 mm. (6.5 mm.)
Length/width ratio: 1.7-2.3 mm. (2.0).

Large Triangular: 1 complete specimen. Plate 14d.

This specimen is triangular in outline with symmetrical straight sides that converge to a well-defined and sharp tip. The base is straight but lacks thinning, and although the edges are sharp they exhibit only partial retouching. The cross section is biconvex and the material used was white chert. This specimen was found in Area 3b and its form and fine edge retouching, where observable, indicates that it could have been a preform for a projectile.

Dimensions: Length: 63 mm.
Width: 34 mm.
Thickness: 8.0 mm.
Length/Width ratio: 1.8.

Small Triangular: 1 complete specimen. Plate 11b.

This tiny specimen is asymmetrically triangular in outline with convex sides, a slightly rounded base and a pointed tip. Retouch occurs along the lateral margins and its cross section is biconvex. This specimen was found in Area 1 and the material used for its manufacture was Iceberg chert.

Dimensions: Length: 23 mm.
Width: 20 mm.
Thickness: 5.0 mm.
Length/Width ratio: 1.15.

Bipointed: 2 complete specimens. Plate 11d, Plate 16b.

These two bifaces differ proportionally in that one is fairly broad and the other narrow and elongate; however, both are asymmetrical in outline with one fairly straight side and another convex side that converge to blunted tips on either end. On both specimens one end, presumably the tip, is more pointed than the other.

These specimens are thick and surface retouch is incomplete so as to leave a portion of the cortex on the dorsal surfaces. Marginal retouch is bifacial on the broader bipoint and unifacial on the more elongate specimen. In cross section they are asymmetrically biconvex and the greatest width occurs near the midpoints of both specimens. The narrow specimen found in Area 1 was made from Iceberg chert while the broader specimen found in Area 4b was made from red quartzite.

Dimensions: Length: 47 mm. and 51 mm. (49 mm.)
Width: 21 mm. and 23 mm. (22 mm.)
Thickness: 8.0 mm. and 9.0 mm. (8.5 mm.).

Notched Biface: 1 specimen with tip and portion of the base missing. Plate 15e.

This rather roughly worked and amorphous biface is ovate to triangular in outline with convex blade margins and a convex base. A very slight notch occurs near the base on the complete side, indicating that it was probably hafted. Marginal retouching occurs dorsally along one lateral edge. This implement was made of Ramah chert and was found in

Area 4a. It is not definite whether this specimen functioned as a knife or projectile.

Dimensions: Length: 35 mm. (approximately)
Width: 22 mm. (at shoulder)
Thickness: 6.0 mm.

Preforms: 2 specimens, 1 complete and 1 fragment.

Plate 16i-j.

These small unfinished bifaces are ovate in outline with convex sides that converge to rounded points at either end. The surfaces are thick and roughly worked, and bear a portion of the original cortex on the dorsal surfaces. Edge retouching is absent and the margins are wavy or sinuous; however, the lateral margin of one specimen is very sharp and undoubtedly the tool was probably used in its unfinished state. Cross sections are biconvex and material used is red quartzite. These specimens were found in Area 4b.

Dimensions: Length: 46 mm.
Width: 32 mm. and 31 mm. (31.5 mm.)
Thickness: 14 mm. and 14 mm. (14 mm.).

Miscellaneous Fragments: 42 specimens including 15 tip fragments, 16 base fragments and 11 medial fragments.

These fragments, recovered from all areas at Iceberg, cannot be assigned to any specific category although all conform to the basic patterns of the numerous complete specimens and, if complete, would undoubtedly fall within the range of known forms.

The tips are pointed and the bases are thinned with straight to convex margins. The material used in the manufacture of these implements reflect the areas from which they were obtained. Area 1, 15 fragments made of Iceberg chert; Area 2, 5 specimens of which 4 were made of Iceberg chert and 1 of another chert; Area 3a, 3 specimens made of Ramah chert and 4 of Iceberg chert; Area 3b, 1 white chert fragment; Area 4a, 5 Ramah chert fragments; Area 4b, 3 quartzite fragments; and Area 5, 7 assorted chert fragments.

Projectile Points

This class of artifacts includes all those specimens, usually with a distinctive haft element, whose form and edge retouch indicates use as projectiles rather than knives. Most projectiles are symmetrical in outline with fine straight edge retouch, especially near the tip, while knives tend to be more irregular in form and exhibit a wavy saw-like edge. This is, of course, somewhat of a subjective designation which is often difficult to assess due to the crudity of some raw materials, and in this case some of the specimens, particularly the lanceolate or more irregular specimens, may have also functioned as knives.

There are 21 specimens in this class of artifacts, the majority of which were incomplete or were reconstructed from broken fragments. The entire sample consisted of 6 complete specimens; 14 basal fragments, and 1 blade fragment.

In classifying these specimens, most attention was paid to the hafting element as the greatest distinction and best indication of change was observable in this area. For the purposes of later comparison and discussion of the overall changes in notch form, I have added an additional measurement, the notch angle, defined as the angle formed by two imaginery lines drawn from the midpoint of the notch concavity to the edge of the shoulder and the base, respectively.

Large Lanceolate: 1 complete specimen. Plate 17d.

This specimen has a narrow elongated lanceolate blade with symmetrical, almost straight margins and a pointed tip. Its greatest width occurs at the base which is straight and bifacially thinned. Cross section is biconvex and the material used is chert. This specimen was found in Area 5 and may relate to the oldest, yet poorly defined 1,500 B.C. component.

Dimensions: Length: 53 mm.
Width: 17 mm.
Thickness: 5.0 mm.

Small Lanceolate: 2 complete specimens and 2 tip fragments. Plate 11h, Plate 12f-h.

The exact function of these small bifaces is rather ambiguous and we should not exclude the possibility that they may have been hafted and used as knives. Their form is basically lanceolate with convex sides, pointed tips and straight thinned bases. Their greatest width occurs at the base and

in cross section they are biconvex. Three of the specimens are made of quartz and exhibit fine marginal retouch along the blade edges; however, the single Iceberg chert specimen is more crudely worked and probably served as a preform. All four specimens were found in Area 1.

Dimensions: Length: 31 mm. and 35 mm. (32.5 mm.)
Width: 16 mm. and 19 mm. (17.5 mm.)
Thickness: 5.0 mm. and 6.0 mm. (5.5 mm.).

Large Corner-Notched: 1 complete specimen. Plate 13c.

This specimen, which was reconstructed from three fragments, is slightly more elongate than those previously discussed, with a symmetrical triangular blade, slightly convex/straight sides and a pointed tip. The shoulders are asymmetric with one side being almost barbed and the other forming a right angle with the haft element. The notches are narrower than that found in other specimens and occur immediately above the base so as to give the impression of a corner rather than a side-notch. Slight grinding occurs in the notch concavity.

The base is slightly convex and has been thinned along its length. The lateral blade margins have been finely retouched so that the edges are sharp and slightly serrated. Cross section is biconvex and the material used in its manufacture was a grey patinated chert. This specimen was found in Area 2 and has been dated at 2440 B.P.

Dimensions: Length: 98 mm.
Shoulder Width: 37 mm.
Thickness: 7.0 mm.
Notch Width: 5.5 mm.
Stem Length/Total Length ratio: 1/8
Notch Angle 80°.

Large Side-notched: 1 complete specimen. Plate 17e.

This large projectile has a symmetrical triangular blade with convex margins and a sharp, well defined tip. The shoulders are slightly rounded forming right angles with the notch element, and the notches, which occur about 2 mm. above the base, are asymmetrical, broad and u-shaped. Grinding occurs in the notch concavity, and the base, which is irregularly convex, has been partially thinned. Fine marginal retouch occurs bifacially along the blade margins, producing a sharp almost serrated blade edge. In cross section this specimen is biconvex. It was found in Area 5 and was manufactured from Ramah chert. A date of 2820 B.P. obtained from this area is probably related to this point.

Dimensions: Length: 92 mm.
Shoulder Width: 41 mm.
Thickness: 8.0 mm.
Notch Width: 7.0 mm.
Stem Length/Total Length ratio: 1/6
Notch Angle: 89°.

Small Side-notched: 3 specimens including 1 complete and 2 with their tips and parts of the base missing. Plate 13k, Plate 15g, Plate 17g.

These three specimens have been classified together on the basis of similar hafting elements which exhibit broad

u-shaped notches very similar proportionally to that found on the larger side-notched projectile discussed previously. These notches occur from 1-2 mm. above the base and have been ground in their concavities. On the single complete specimen the blade is asymmetrically triangular in outline with convex sides and a pointed tip. The blade margins have been retouched but lack the fine parallel flaking found on the large projectile. The bases are incomplete in all specimens, but the fragmentary remains indicate that they were straight or slightly convex and probably thinned. The complete specimen is plano-convex in cross section, while the others are bi-convex. The single specimen found in Area 3a was made of Ramah chert, the single specimen recovered from Area 4a was made of Iceberg chert, and the remaining specimen from Area 5 was made of Ramah. A date of 2870 B.P. obtained from Area 4a is associated with these specimens, which makes them the oldest known forms of projectiles found at Iceberg. Except for their size they are quite like the larger side-notched point which was dated to a slightly later period, and I suspect that they were probably produced by related groups of people.

Dimensions: Length: 38-58 mm. (approximately) (43.6 mm.)
Shoulder Width: 24-27 mm. (25.3 mm.)
Thickness: 4.0-6.0 mm. (6.0 mm.)
Notch Width: 5.0-6.5 mm. (5.8 mm.)
Stem Length/Total Length ratio: 1/6
Notch Angle: ca. 90°

Broad Side-notched: 2 specimens with tips missing.

Plate 12i, Plate 17f.

These incomplete specimens have asymmetrical blade margins with fairly straight sides. The notching is also asymmetrical so that one side exhibits a broad shallow notch and well defined shoulders, while the other exhibits only a slight concavity and almost no shoulder. In both cases the notches have been ground in their concavities.

In one specimen, retouching occurs on one blade edge only while the other exhibits a wavy or sinuous edge. Possibly this specimen functioned as a knife or was used in its unfinished state as a projectile. Both bases are straight but only one specimen exhibits basal thinning. In cross section they are biconvex.

These specimens were found in Area 1 and Area 5, respectively, and as such were separated temporally by over 500 years which suggests that the observed similarities are probably more indicative of their amorphous and unfinished state than anything else. The specimen from Area 1 was made of Iceberg chert and the other was made of Ramah chert.

Dimensions: Length: Incomplete (Area 5)
Shoulder Width: (Area 1) (20 mm.) (22 mm.)
Thickness: 4.0 mm. (5.0 mm.)
Notch Width: 15 mm. (15 mm.).

Basal fragments: 8 specimens. Plate 12j-k, Plate 13 l-m, Plate 15h-i.

The majority of these fragments appear to resemble the haft elements found on the small side-notched points. The notches begin from 1-3 mm. above the bases, which are straight to slightly convex and have been thinned. Grinding can be observed on some specimens; however, most have been broken below the point where grinding was found on the complete specimens. In cross section these specimens are biconvex and materials used include Iceberg chert, Ramah chert, other cherts and quartz. These specimens were found in Area 1 (2 fragments); 3a (3 fragments); 4a (3 fragments). Dimensions: Basal Width: 14-20 mm. (17 mm.)

Blade fragment: 1 specimen.

This blade fragment is roughly triangular in outline with asymmetrical convex margins and a pointed tip. Although the stem is missing the shoulders are well defined and similar to that found in the notched forms. Fine marginal retouching occurs along the blade outline. Cross section is biconvex and material used was Iceberg chert. This specimen was found in Area 4a.

Dimensions: Blade Length: 36 mm.
Shoulder Width: 20 mm.
Thickness: 6.0 mm.

Miscellaneous

This class includes those specimens whose form and/or function precludes assignation to either the biface or projectile point class.

Perforator: 1 complete specimen. Plate 12e.

This specimen is irregular in outline with straight almost parallel sides which converge asymmetrically at a point about one third of its length above the base to produce a tapering point which was the working portion of the tool. The greatest width occurs at this margin.

The base is straight and unmodified. Retouch is marginal and occurs bifacially along the entire length of the tapering point. Cross section is biconvex and the material used was Iceberg chert. This implement was found in Area 1.

Dimensions: Length: 45 mm.
Width: 20 mm.
Thickness: 6.0 mm.

Reworked Point Base: 1 specimen. Plate 15f.

This tool consists of a broken side-notched point that has been roughly worked on its distal margin to produce a convex edge probably used for cutting or scraping. This tool was found in Area 4b, and the notching is very similar to that found in the projectiles from that area. The base is slightly convex and has been thinned. Cross section is biconvex and the material used was Ramah chert. This specimen was found in Area 4a.

Dimensions: Length: 25 mm.
Shoulder Width: 24 mm.
Basal Width: 20 mm.
Notch Width: 13 mm.
Thickness: 5.0 mm.

Unifacial Series

Flake Points

Expanding Stemmed: 5 specimens, 3 complete, 1 medial fragment and 1 stem fragment.

Plate 19i-j, Plate 12 l-n.

These small projectiles have ovate to triangular blade outlines with convex sides and pointed tips. The stems are expanding to notched with rounded bases and grinding occurs dorsally on the stem edges. The dorsal surfaces have been partially worked, and fine marginal retouching occurs along the entire outline including the bases, except in one case where the base is unmodified. Ventral marginal retouch occurs on all specimens. Cross sections are plano-convex or concave-convex and the striking platforms (where visible) occur ventrally at the base. These points were found in Area 1 and were made of Iceberg chert.

Dimensions: Length: 25-32 mm. (28.6 mm.)
Shoulder Width: 12-14 mm. (13 mm.)
Basal Width: 7-12 mm. (9.5 mm.)
Thickness: 2-3 mm. (2.5 mm.).

Side-notched: 1 complete specimen. Plate 13d.

This small corner-notched point has a roughly triangular blade outline with convex margins that converge to a slightly pointed tip. The base is rounded and exhibits the remnants of the bulb of percussion on its ventral surface. Retouch is marginal and discontinuous, occurring dorsally

near the tip and bifacially along the stem edges. The point conforms to the curvature of the original flake and exhibits a concave-convex section. This specimen was found in Area 2 and was made of brown chert.

Dimensions: Length: 30 mm.
Shoulder Width: 12 mm.
Basal Width: 17 mm.
Thickness: 4.0 mm.

Ovate: 2 complete specimens.

These small roughly worked flaked points are ovate in outline with irregular convex sides, pointed tips and slightly rounded bases. Marginal retouching occurs on both specimens along one blade edge only. A broad flake has been removed from the base of one specimen to enable hafting, but the base of the other specimen is unmodified. Again, the cross section conforms to the shape of the original flake blank and is roughly biconvex. The specimen recovered from Area 1 was made of Iceberg chert, while the specimen found in Area 3a was made of quartzite.

Dimensions: Length: 33 mm. and 34 mm.
Width: 18 mm. and 18 mm.
Thickness: 4 mm. and 4 mm.

Flake Knives

Side-notched: 2 complete specimens. Plate 12o, Plate 13f.

In these specimens the blade outlines are irregular with asymmetrical straight lateral margins that meet at blunt tips. One side is deeply side-notched and the other

exhibits only a slight concavity. The notches have been slightly ground. Retouch is marginal and occurs along one blade edge on the dorsal surface which was probably the cutting edge. The ventral surfaces are unaltered and remnants of the bulb of percussion can still be seen on the side. In cross section these specimens are irregularly plano-convex and the bases are straight. They were recovered from Areas 1 and 2 and were manufactured from Iceberg chert.

Dimensions: Length: 20 mm.
Shoulder Width: 16 mm. and 21 mm. (18.5 mm.)
Basal Width: 20 mm. and 23 mm. (21.5 mm.)
Thickness: 4.5 mm. (4.5 mm.).

Stemmed: 1 complete specimen. Plate 17h.

This large irregular knife form exhibits in outline and section the form of the original flake blank. The blade outline is asymmetric with one lateral edge more convex than the other. The tip is slightly pointed and the stem is straight with a straight base. The dorsal surface has been roughly worked and marginal retouch occurs along the entire outline. Ventral marginal retouch occurs on the stem and the more convex blade edge only. The stem was formed ventrally and its lateral edges have been ground. This implement was found in Area 5 and was made of chert.

Dimensions: Length: 49 mm.
Shoulder Width: 19 mm.
Basal Width: 8.0 mm.
Thickness: 6.0 mm.

Scrapers

Endscrapers: 2 complete specimens. Plate 15j-k.

These specimens are roughly rectangular in shape with a dorsal ridge running longitudinally along their length. The working edges are convex with an edge angle of 65'. Marginal retouch occurs on both lateral margins indicating alternate use as cutting tools. A slight spur occurs on the corner of the working edge on one of the specimens and although this may be a function of the original flake shape, use wear is present so as to suggest alternate graving function. The proximal end of the unspurred specimen is missing while on the other this edge is unmodified. There is no evidence of hafting, and in both cases the bulb of percussion occurs ventrally on the end opposite the flaking edge. In section these specimens are trapezoidal. Both were recovered from Area 4a and were made of Ramah chert and a fine-grain brown chert, respectively.

Dimensions: Length: 27 mm.
Maximum Width: 23 mm.
Thickness: 5.0 mm. and 6.0 mm.
Edge Angle: 65.

Concave Scrapers: 2 specimens. Plate 11k, Plate 12p.

These roughly rectangular flake tools are characterized by a concave scraping or gouging edge formed on the dorsal surface of the end opposite the striking platform. The ventral surfaces are unmodified and exhibit a medial ridge along two thirds of its length from the distal end to

the apex which is the thickest point. Cross sections are triangular. These specimens were found in Area 1 only, and were made of Iceberg chert.

Dimensions: Length: 28 mm. and 25 mm. (26.5 mm.)
Width: 12 mm. and 20 mm. (16 mm.)
Thickness: 5.0 mm. and 8.0 mm. (6.5 mm.).

Flake Scrapers: 11 specimens. Plate 11 1, Plate 13n-o, Plate 15m.

This is a rather amorphous tool category, exhibiting little uniformity in size and form except for the presence of retouching along one or more margins so as to produce a scraping edge. All were made of Iceberg chert and were distributed as follows: Area 1, 5 specimens; Area 3a, 3 specimens; and Area 4a, 3 specimens.

Gravers: 2 complete specimens. Plate 13p, Plate 15 1.

Although these flake tools differ in shape, it was probably the original shape of the flake that inspired their function and all possess in common a sharp chisel-like cutting point which serves to identify them as gravers. Many other broken or pointed flakes recovered at Iceberg could have been used for this purpose; however, in this case the pattern is consistent enough to suggest that a particular finished tool was intended.

One specimen has been made on a linear flake and is irregularly triangular in cross section. The other has been made on a rather broad flat flake and is plano-convex in

cross section. Surface retouching is absent on both specimens. The single graving spur occurs on one corner of the end opposite the striking platform, and on one specimen the adjacent lateral edge exhibits steep retouching, indicating that it probably functioned as a side-scraper as well. The specimen made from the linear flake is thin, very sharp and could also have been used for cutting. The specimen found in Area 3a was made of Iceberg chert, and the specimen found in Area 4a was made from Ramah chert.

Linear Flakes: 13 specimens, 9 complete and 4 fragments. Plate 11m-n, Plate 12q-r, Plate 13e-g, Plate 14e-h, Plate 15n-o, Plate 17i.

These specimens vary in size and raw material, but all seem to have been produced by the same manufacturing technique (cf. McGhee and Tuck, 1975a: 58). They are elongate in form with lengths of two to three times the width and exhibit a pronounced or poorly defined medial arris extending from the striking platform to the distal end along the dorsal surface. They are roughly triangular in cross section.

The four specimens recovered from the earliest component (3b), are much larger than the majority of implements (a trend which manifests itself for the majority of artifacts found in this area). One of them has also been retouched along its lateral margins so as to produce an edge suitable for cutting or scraping. The distribution, dimensions, and materials from which the implements were manufactured are

given as follows:

Area 1	25 mm.	7 mm.	2 mm.	Iceberg chert
	- mm.	- mm.	2 mm.	" "
	- mm.	- mm.	2 mm.	" "
	- mm.	11 mm.	3 mm.	" "
Area 2	32 mm.	8 mm.	2 mm.	Brown chert
	- mm.	12 mm.	4 mm.	Quartzite
Area 3b	60 mm.	18 mm.	9 mm.	White-grey chert
	55 mm.	23 mm.	10 mm.	" " "
	48 mm.	15 mm.	4 mm.	" " "
	41 mm.	12 mm.	5 mm.	Brown chert
Area 4a	31 mm.	10 mm.	3 mm.	White-grey chert
	30 mm.	8 mm.	2 mm.	Brown chert
Area 5	30 mm.	10 mm.	3 mm.	White-grey chert
Average:	39 mm.	13 mm.	5 mm.	

Retouched Flakes: 20 specimens. Plate 11o-q, Plate 12s, Plate 14i-l, Plate 15p-r, Plate 17j-m.

This category includes all those irregular flakes with partial and discontinuous retouching along one or more margins. These are not formed tools and probably served a variety of cutting or scraping functions. These specimens were made of a variety of materials and were distributed as follows: Area 1, 2 specimens of Iceberg chert; Area 3a, 1 specimen made of Iceberg chert; Area 3b, 4 specimens of whitish-grey chert, and 1 of another chert; Area 4a, 3 specimens of Iceberg chert, and 3 specimens of Ramah chert; Area 5, 6 specimens of assorted cherts.

Utilized Flakes: 2 specimens.

These flakes were not modified but do exhibit use wear along one or more margins. Both specimens were found in Area 5 and were made from a variety of cherts.

3. Artifact Descriptions - The Black Rock Brook Site

The majority of the 95 artifacts recovered from the single 36 square meter area excavated at this site were of chipped stone and as such have been classified according to the same criteria used for the Iceberg site. An additional ground stone category has been added to accommodate the single whetstone fragment recovered.

This material dates to a slightly earlier period than the majority of Iceberg components, and despite the fact that the available comparable material indicates that we are dealing with a similar technological tradition, there are differences. In particular, note should be made of the absence of flake points and flake knives, as well as the lack of diversity within the biface class, with the Black Rock Brook site having only a lanceolate form as opposed to the six to nine varieties found in most Iceberg components.

Bifacial Series

Bifaces

Lanceolate: 22 specimens, 4 complete, 5 tip fragments, 10 basal fragments and 3 medial fragments. Plate 18a-d.

All these specimens are basically lanceolate in form although there is considerable variation in absolute size and shape, with specimens ranging from long and narrow to slightly broad, almost leaf-shaped forms. All have convex

TABLE 3

ARTIFACT DISTRIBUTION - THE BLACK ROCK BROOK SITE

Biface Series	
Bifaces	
Lanceolate	22
Preforms	10
subtotal	32
Projectile Points	
Small side-notched	1
Blade Fragments	3
Stem Fragments	1
subtotal	5
Miscellaneous	
Drill	1
Unifacial Series	
Endscrapers	5
Flake Scrapers	3
Linear Flakes	34
Retouched Flakes	14
subtotal	56
Ground Stone	
Whetstone	1
Grand Total	95

sides, pointed tips, and slightly rounded bases which have been thinned. The greatest width occurs near the base. Surface and edge retouch is bifacial and in cross section all specimens are either plano-convex (7), or biconvex (15). All were manufactured from a greyish-white patinated chert.

Dimenions: Length: 70-105 mm. (83 mm.)
Width: 25-32 mm. (30 mm.)
Thickness 7.0-12 mm. (8.0 mm.).

Preforms: 10 specimens: 1 complete and 9 fragments.

Plate 18e-f.

These specimens were designated on the basis of crude workmanship, thickness, and absence of any secondary retouching, although several exhibit use wear along one edge and were probably utilized in their unfinished state. The single complete specimen is ovate in outline with a rounded base and pointed tip. Surface retouching is unifacial and there is some evidence of use wear along one lateral edge. The remaining specimens are fragmentary and include 4 bases, 2 tips, and 3 miscellaneous medial fragments. All were very thick, ranging from 13-19 mm. and exhibit only partial surface retouching on both sides.

Dimensions: 1 complete specimen: Length: 55 mm.
Width: 38 mm.
Thickness: 17 mm.

Projectile Points: 5 specimens: 1 complete, 1 stem fragment and 3 blade fragments.

Plate 16g-h.

The single complete specimen in this category has a long, narrow but irregular lanceolate blade, and the tip, which is now broken, was probably pointed. The haft element consists of very weak obtuse angled shoulders and broad shallow side-notches that have been ground in their concavities. These notches are asymmetric and occur from 1-1.5 mm. above the base which is irregularly straight and thinned. The three blade fragments, although more symmetrical than the complete specimen still conform to the basic long lanceolate shape and probably represent very similar point forms. All specimens are biconvex in cross section and have, with the exception of the basal fragment which is made of quartz, been manufactured from a greyish-white patinated chert.

Dimensions: 1 complete specimen: Total Length: approx. 70 mm.
Shoulder Width: 22 mm.
Blade Width: 20 mm.
Stem Length: 16 mm.
Thickness: 8.0 mm.
Notch Angle: 100°.

Miscellaneous

Drill (?): 1 specimen, base missing. Plate 18i.

This specimen, which consists of a narrow lanceolate blade element broken just above the stem, probably functioned as a drill as it exhibits a rounded bit portion which has been ground on both surfaces. Cross section is biconvex and the material used was a greyish-white patinated chert.

Dimensions: Blade Length: 50 mm.
Width: 13 mm.
Thickness: 8.0 mm.

Uniface Series

Scrapers

Endscrapers: 5 complete specimens. Plate 18j-n.

These tiny 'thumbnail' scraping tools are roughly triangular in shape with (3) or without (2) a slight ridge running longitudinally along their dorsal surfaces. In all cases the maximum length, measured from the distal end to the working edge, is equal to the width of the working edge.

The dominant working edges which occur opposite the 'apex' of the triangle, are convex in outline with an edge that ranges from 40°-60°. Slight to marked marginal retouching also occurs on the two adjacent lateral margins of all specimens so as to produce alternate scraping edges. On two of the specimens this alternate edge retouch is almost as pronounced as the primary working edge; while another specimen exhibits a second primary scraping edge on the alternate ventral margin. Usually the ventral surface is unaltered so that in cross section the specimens exhibit the form of the original flake which was either plano-convex (4) or concave-convex (1). The material used in the manufacture of these implements was the same patinated chert described for the other artifacts ranging in color from greyish-white (2) to dark grey (3).

Dimensions: Length: 15-20 mm.
Maximum Width: 15-20 mm.
Thickness: 3-6 mm.
Edge Angle: 40-60°.

Flake Scrapers: 3 specimens. Plate 19 l.

These specimens vary in form and shape, but all possess a definite scraping edge formed dorsally along one margin. On two of them this edge is convex in outline with an angle of about 60°. The other specimen, however, exhibits a concave working surface with an edge angle of only 45°. This surface has also been ground, suggesting that it probably functioned as a spokeshave.

Marginal retouching occurs along the lateral margins of all specimens, but surface working is entirely absent. These implements conform to the original shape of the flake blank and in cross section are plano-convex. They are all made of the greyish-white chert.

Linear Flakes: 34 specimens: 27 complete and 7 fragments. Plate 19a-d (altered), Plate 19e-k (unaltered).

The range of size in this class of artifacts is considerable; however, all conform to the same basic shape, and are elongate in form with lengths two to three times their width. A pronounced medial ridge extends longitudinally along the dorsal surface so that they are roughly triangular in cross section. Fourteen of the specimens have been unaltered; however, another fourteen exhibit slight to marked retouching on one or both lateral margins, and six specimens have a shallow scraping edge formed on the dorsal surface of the distal margin opposite the striking platform. These

latter twenty implements, all of which represent the larger specimens in the class, undoubtedly functioned as scraping tools. All specimens were manufactured from a greyish-white to dark grey patinated chert.

Dimensions: Length: 27-65 mm. (40 mm.)
Width: 11-21 mm. (16 mm.)
Thickness: 5.0-11 mm. (6.0 mm.).

Retouched Flakes: 14 specimens.

These implements are rather amorphous in size and shape; however, all exhibit partial and discontinuous retouching along one or more margins, and as such probably served a variety of scraping and cutting functions.

Ground Stone Series

Whetstone: 1 fragmentary specimen. Plate 19m.

This tabular slab of basalt is broken and very weathered; however, it does exhibit a slightly polished surface and rounded edges at one end, which indicates use as a whetstone or grindstone.

Dimensions: Length: 120 mm.
Width: 70 mm.
Thickness: 28 mm.

CHAPTER IV

SUMMARY AND DISCUSSION

1. Settlement and Economy

The Iceberg and Black Rock Brook sites together appear to have been occupied sporadically over a period of 1,500 years; and at least nine separate living floors were discernible in the five main areas of excavation at Iceberg and single area of excavation at Black Rock Brook, which documented the course of these occupations.

Most of the living floors appeared to have been occupied only once and were provisionally classified as single components. Their overall size was somewhat small, ranging from 16 to 22 square meters, with an average of 19 square meters, and each contained one or two shallow rock lined hearths with which was associated abundant charcoal and a small quantity of chipped stone artifacts.

The three living floors found in Areas 4a and 5 at Iceberg, as well as the single area excavated at Black Rock Brook, were somewhat larger in size and the remains appeared to have resulted from the accumulated activities of several consecutive occupations. These loci were approximately 25 square meters, 29 square meters, and 36 square meters in size, respectively, and contained three or more hearths. Unfortunately, the exact nature and size of each of these

occupations could not be ascertained due to the large amount of disturbance and the absence of stratigraphic separation. An estimated guess, however, based on the figures obtained from the single component floors, would indicate that no more than two or three repeated occupations were represented in any single area.

The dominant and only feature encountered in all areas was hearths, around which the majority of domestic debris was located and which appeared to be the central focus of each component. These features varied in form and size; however, all were clearly of the same general type: shallow sand hearths, lined with burnt and disintegrated cobbles interspersed with large amounts of charcoal.

Noticeably absent was any evidence of structures such as postmolds, large depressions or even rock configurations. This pattern is somewhat characteristic of sites in the southern Labrador area and is probably related to several factors, including the shifting sand cover which would impede preservations of postmolds or depressions, and the fact that most coastal sites were probably inhabited during the spring and summer when windbreaks or simple skin tents were the only shelter required. Many of the larger scattered rocks found on most of the living floors could be related to structures of this kind; unfortunately, no particular outlines could be discerned to corroborate this possibility.

These small campsites were all located in close proximity to the ocean, and although no faunal remains were preserved so as to provide us with a specific and conclusive account of their economy, other geographical and ecological factors strongly suggest some sort of maritime adaptation, probably involving a seasonal exploitation of marine mammals, fish, and sea-birds.

In southern Labrador, coastal resources are most available and prolific during the spring and summer months and this, combined with the absence of any evidence of permanent structures, indicate that it was during this period that the Iceberg and Black Rock Brook sites were occupied. Unfortunately, there are no interior sites from this period with which to compare and establish the full range of subsistence activities and movements engaged in by these people; however, given the season and temporary nature of these occupations and resources, I would suggest that the winters were probably spent in the interior along rivers or lakes where caribou and other smaller mammals could be found. The movement of these people to the coast was probably coincident with the appearance of the harp seals as they moved south in the spring on the floating pack ice. Later in the summer, fish such as capelin and cod could be taken near shore, or salmon could be intercepted in their annual runs in the nearby streams. Sea-birds and other migratory waterfowl were probably also

important, while caribou, ringed seal and harbour seals undoubtedly provided additional dietary supplements when these became available occasionally.

The domestic debris associated with each of these living floors was simple, unspectacular, and yet distinctive in that it was comprised almost entirely of chipped stone and confined to a very limited number of artifact class, the most important of which include bifaces, projectile points of both bifacial and unifacial varieties, and an assortment of other unifacial implements such as scrapers, gravers, linear flakes and retouched flakes. A single perforator and a drill were also recovered in two separate areas. A whetstone found at the Black Rock Brook site was the sole representative of a ground stone industry.

Absolute figures varied according to the size and intensity of occupation, but generally the artifact yield was very low with an average density of about three artifacts per square meter at Black Rock Brook, and only one artifact per square meter in most areas at Iceberg. It should be noted that as a fair amount of surface collecting was carried on by Harp at the Iceberg site, these figures may be too low, although I doubt that these additions would alter the overall figures significantly.

The absence of a bone industry was undoubtedly due to the acidic soil conditions and, given the coastal orientation of these sites, no doubt much use was made of this

material in the manufacture of hunting and fishing implements. There was a noticeable lack of heavy woodworking implements of either chipped or ground stone, although the presence of gravers, scrapers and perforators does suggest that bone and hideworking was carried on, if only in terms of the repair and maintenance of already finished skins and implements.

At Iceberg, large stone manufacturing implements such as abraders, anvils and hammerstones were also absent and this, along with a generally low tool/flake ratio and the nature of the manufacturing debris, which consisted primarily of small thinning flakes and finished implements, indicates that relatively little primary tool manufacturing was carried on here. At Black Rock Brook, the profusion of flakes, chunks of raw materials, and preforms, attest to workshop operations, and no doubt greater emphasis was placed on tool manufacturing and maintenance at this site.

Generally speaking, the specific and restricted nature of the domestic debris indicates that these people were engaged almost exclusively in hunting and related domestic activities, and the overall impression is that we are dealing with small temporary campsites established specifically for the exploitation of available resources.

Similar types of small coastal hunting camps have been reported archaeologically from many areas, and it appears that this type of settlement pattern was not uncommon to the majority of coastal groups who inhabited this region for

thousands of years.

Over one thousand years before the earliest occupants set up camp at Iceberg, people in central and northern Labrador, albeit with somewhat different tool assemblages, appear to have exploited the coast in a manner similar to what has been envisaged for the majority of Iceberg and Black Rock Brook residents. The Sandy Cove complex found in Hamilton Inlet and dated between ca. 6000-4000 B.P. (Fitzhugh, 1972, 1975), as well as a slightly younger northern variant found in Saglek between ca. 4500-3800 B.P. (Tuck, 1975a), are known for their small coastal summer settlements, with a small quantity of artifacts and chipping debris scattered over a restricted area in association with one or two hearths. These people had what Fitzhugh calls an "Interior-Maritime Adaptive system," involving a seasonally specialized coastal adaptation and a less important and generalized winter adaptation in the interior (1972: 159-160). It would probably not be presumptuous to suggest a similar adaptive pattern for the later Iceberg and Black Rock Brook residents.

Unfortunately, these settlements have no direct historical counterparts on the Labrador coast, as Indians here were involved primarily with inland subsistence at the time of contact. However, a good comparison can be made with the now extinct Beothuck Indians of Newfoundland, as according to the historical accounts by Lloyd (1875) and Howley (1915), as well as archaeological data recovered and discussed by Devereux

(1970), LeBlanc (n.d.), and Carignan (1975), these people followed an exploitative pattern that closely resembled that observed for the earlier Archaic populations.

Of course, we cannot assume a derivative relationship on this basis alone; however, it at least indicates that the same maritime oriented pattern of seasonal exploitation and settlement was followed (albeit with varying degrees of intensity), by Indian groups of this area into historic times, and as such provides supportive evidence for, and adds cogency to the arguments propounding insitu development and cultural continuity in this area throughout this period.

2. Technology

In consideration of the overall artifact assemblages recovered from the Iceberg and Black Rock Brook sites, it is immediately obvious that the majority of materials can be assigned to a single technological tradition defined broadly on the basis of a lithic industry comprised primarily of a large number of assorted bifacial knives, smaller numbers of notched projectile points, and a wide variety of unifacial implements, including flake points, scrapers, linear flakes and retouched flakes.

The single component from Area 4b at Iceberg had a very distinctive tool assemblage comprised entirely of crude quartzite bifaces of a form and material quite unlike that found in the other components, and on this basis it would probably not be presumptuous to assign these material to a different, as

yet undetermined technological tradition.

On a broader level, each of the occupational units excavated at these sites had discrete spatial and temporal associations, and within the larger sphere of the 'technological tradition' many and varied differences can also be noted, which attest to subtle and ongoing technological change during the 1,500 year period of occupation in these areas. These differences are especially discernible in the raw materials, the stylistic attributes, and the frequency of the major tool classes; and in the following pages a number of the more diagnostic artifacts shall be considered individually in their broader temporal and cultural contexts so as to elucidate the nature, direction, and where possible, the pattern of this technological change throughout the period in question. These materials are not discussed in the order in which they were presented in the artifact descriptions, but in ascending order of their importance as sensitive indicators of the major developmental trends.

Bifaces

Bifaces represent the largest and most diverse class of tools at both the Iceberg and Black Rock Brook sites, accounting for 31% to 100% of the total assemblage, depending on the area. The quantity and distribution of particular forms within this class varied from area to area; however, it appears that the absence of many forms in any one area is probably

attributable to variations in occupational size or the vagaries of preservation and sampling. Leaf-shaped and lanceolate forms predominated generally, and there was a noticeable dearth of preforms, especially at Iceberg; but aside from this, no pattern suggestive of temporal or cultural trends could be discerned with regards to the distribution of particular 'types'.

On the other hand, the variation of individual specimens within particular 'type' categories, especially in terms of size and raw materials, did exhibit a pattern coincident with different area associations and concomitant temporal separation. In this case, the white chert specimens of each 'type' were recovered from the oldest components at the Black Rock Brook site and Area 3b at Iceberg; the majority of Iceberg chert and Ramah chert specimens were distributed fairly evenly amongst the later Iceberg components found in Areas 1, 2, 3a, 4a, and 5; and the quartzite bifaces were obtained exclusively from the undated component in Area 4b at Iceberg.

Associated with this distribution were differences in artifact size, so that the Ramah and Iceberg chert specimens were usually smaller, thinner and of finer workmanship than either the coarse chert or quartzite specimens. Of course, size alone is not particularly significant as it is undoubtedly related to the particular property of the stone from which the tool was manufactured. On the other hand, the quartzite specimens were considerably larger and cruder than is necessary even if we consider the limitations of this coarse material,

and as such seem to suggest a conscious effort (or lack of effort), on the part of the manufacturer to produce these particular forms. In this case, I would suggest that the crudity of the specimens is significant and perhaps culturally specific, and on this basis I would separate this material from the other specimens.

The white chert bifaces recovered from Area 3b were also somewhat larger than the majority of specimens; however, they exhibited the same fine chipping technique that characterized the Ramah bifaces, and as such I would attribute the observable difference in size to the particular raw material used. Furthermore, the component from which the majority of white chert specimens was recovered dated to a somewhat earlier period than the majority of Iceberg components, and temporal separation could also be a factor in this distinctiveness. These specimens compare well with the material recovered from the Black Rock Brook site in terms of age, raw materials, size, and form; and it is interesting to speculate that this early period (4000-3000 B.P.), represented a distinctive technological phase that involved the exclusive use of coarse cherts in the manufacture of fairly large implements. From that point onward in time there was an increase in the use of Ramah chert and a concomitant decrease in the size of the tool forms.

Flake Points

Two types of flake points were found, an expanding stemmed/notched variety, and an ovate type which may have been a preform for similar notched forms. These forms were not found at Black Rock Brook or in all areas at the Iceberg site, although I believe they may have had a wider distribution than is implied from the available evidence, which places them only in context of the three youngest components dating between 500-100 B.C. On the other hand, even if they were used at an earlier period, the complete absence of these forms in these assemblages certainly suggests a much lower frequency than is found in the later assemblages, and at the very least the situation appears to reflect an increase in the production of, and dependency upon this form of projectile by later groups.

Such a development could be indicative of an increasing reliance on the bow and arrow in the procurement of game; however, another consideration is the differential availability and use of particular raw materials, for although a variety of stones, including the coarser cherts and quartz, were used in the production of these flake points, these forms seem to occur in the greatest numbers amongst those groups who used mainly Ramah or other fine-grained cherts in the manufacture of their stone implements. This material, due to its strength and fine grain, is ideal for producing thin and tiny flake projectiles, and probably an increase in the availability

of this material would be correlative with the increasing popularity of this tool form.

Of course, flake points as a tool form are not unique to the Iceberg site, although to date they have not yet been found elsewhere in southern Labrador. The earliest evidence of such implements comes from Hamilton Inlet in central Labrador, and Saglek in northern Labrador where flaked points, albeit of a stemmed rather than notched form, have been found in good Maritime Archaic contexts dating from 4500-3800 B.P. (Fitzhugh, 1972, and Tuck, 1975). Identical stemmed points, undoubtedly related to the same tradition have also been found in Newfoundland at the Beaches site in Bonavista Bay (Carignan, 1975), and at the Curtis site in Twillingate (Macleod, 1967).

Expanding stemmed and notched forms make their first appearance at the Black Island 2 site in Hamilton Inlet, ca. 4500-4000 B.P. (Fitzhugh, 1975). These forms continue to be used well into the Christian era as evidenced by their presence at Iceberg, in sites of the Point Revenge complex, ca. A.D. 1100 (Fitzhugh, 1972), in Nova Scotia, ca. A.D. 1300 (Steve Davis, personal communication), and in Prince Edward Island, in association with other Woodland and proto-historic material (Leslie Maloney, personal communication).

Except for a single specimen found on Anticosti Island (Kidder and Tuck, 1972), these specimens have all come from good Maritime Archaic cultural contexts, and although more

evidence is needed, especially from other cultural traditions such as Shield and Laurentian; it would appear that this trait is a cultural diagnostic of the eastern maritime peoples. Moreover, following its appearance in the third millennium B.C., this point form continued to be used by the coastal inhabitants of much of the northeast well into the historic period.

Changes, mainly of a stylistic nature, did occur throughout this period, particularly in the hafting element, and it is interesting to note that the shift from stemmed to notched varieties loosely parallels a similar development in the bifacial projectiles. To go even further, we might also suggest that the tiny bifacial micro-points attributed to the Beothuck culture in Newfoundland, and found in several Point Revenge sites of central Labrador, represent a further refinement of this tool form. Much more evidence is needed to either verify or refute these speculations; however, we can say with some certainty that the presence of these flake points in several Iceberg components is another factor relating these groups to earlier and later known maritime peoples in Labrador, and as such is supportive of the idea that the Maritime Archaic cultural tradition continued in this area until the historic period.

Linear Flakes

The presence of linear flakes in the majority of assemblages from both sites attests to the importance of a

blade and core industry within this cultural tradition; however, there was also considerable variability in the size, form, and frequency of specimens within these assemblages which is indicative of significant shifts in terms of the raw materials used, the apparent function, and the importance of these tool forms through time.

The greatest number, most diverse assortment, and generally the largest of these implements occurred within the earliest assemblages represented at Black Rock Brook and Area 3b at Iceberg, with later assemblages having fewer and much smaller forms (the latter no doubt due to the use of Ramah chert instead of the coarse cherts found in earlier assemblages). Moreover, many of the linear flakes in the earlier assemblages exhibited marginal retouching on the side and/or end of the blade so as to produce an edge suitable for use as a scraper. This was not evident on the later examples, and it is interesting to speculate that the large variety of finely made retouched flakes and flake scrapers produced by the later groups may have assumed the function of the former. Linear flakes are not known from sites younger than the latest Iceberg component, and it might be provisionally stated that the decline in quantity of these forms in earlier assemblages was the beginning of a gradual trend that was to lead to the eventual disappearance of this tool altogether by the early centuries of the Christian era.

Projectile Points

Bifacial projectile points were found in all but two areas at the Iceberg site (Area 3b and 4b), and accounted for 8% to 22% of each assemblage. It should be noted that as a measure of the importance and degree of hunting carried out by these groups, these figures are somewhat misleading, as a large part of the hunting assemblage was probably comprised of a variety of other implements including flake points and bone and antler points that have not been preserved. The addition of these implements would undoubtedly increase the above figures, and as such provide a better idea of the true nature of cultural activities, which probably centred around seal hunting and fishing.

Ramah chert was the dominant raw material used in the manufacture of these implements, and all but three specimens, including a larger corner-notched point of grey chert, and two basal fragments of quartz and brown chert, were made of this material. Three basic varieties were found, although not in every area. These included large notched projectile points, smaller notched projectiles, and a variety of lanceolate points. The uneven distribution of these forms was undoubtedly a function of preservational discrepancies, and I do not doubt that if a larger representative sample of each component was available, all three forms would be found in most areas.

Only one complete specimen was recovered from the Black Rock Brook site. This small projectile was notched, but not directly comparable to the other Iceberg forms and probably represents an earlier and cruder variant of the same basic notched type.

With such a small sample it was not possible to define types statistically, and the several designated categories represent only tentative groups based on formal attributes, with particular emphasis on the size and notch form. The size differences are probably functionally rather than culturally significant, as both large and small varieties were found together. On the other hand, the variation observed in the notching, which ranged from a broadly side-notched to a slightly corner-notched form, was correlative with temporal differences, and as such indicative of subtle and ongoing stylistic change in point morphology that was to lead to the development of a true corner-notched type by the Christian era.

Of course, such an interpretation based solely on the meagre evidence from the Iceberg and Black Rock Brook sites is necessarily suspect, and as such can probably be deemed as mere speculation or one of several possible alternative interpretations of the available data. On the other hand, if we consider the wider cultural and temporal milieu and compare this material with earlier and later known manifestations in the area, the imprecise and almost imperceptible

trend suggested at Iceberg becomes much more apparent in that it mirrors an overall pattern of directional variation and typological change in projectile forms that can be demonstrated for the last 3,000 years of Indian occupation in Labrador.

Notched forms of projectiles were not unique to Labrador during this period, and they can be traced throughout the other Atlantic provinces probably as far south as Massachusetts, westward along the St. Lawrence, and even northward into central Quebec. This has led some investigators to suggest a relationship with these more southern and western groups and even to attribute the appearance of the notched forms in Labrador to an actual population movement of these people into the area. I believe that such associations and implied relationships are probably more apparent than real, as a closer examination of the larger cultural contexts and histories of the respective groups indicates a diversity which precludes all but the most superficial relationships. A far better and more plausible case, however, can be made for the development of this form within the Labrador cultural context itself, representing one of a series of gradual shifts in the material culture of groups who inhabited the coast almost continuously for over 8,000 years.

A fairly detailed typological sequence relating to the actual changes in material culture which occurred during

this perfod has been constructed for a major portion of this time (McGhee and Tuck, 1975a and b). In this discussion I am particularly concerned with the last 3,000 years of this period at which time the earliest notched forms appeared and underwent a gradual stylistic change, that was to end I believe, in the small corner and side-notched projectile type used by the early historic Indians in Newfoundland and Labrador.

Of course, any comparison or discussion of changes in a single cultural element has its limitations, and in many cases its effectiveness in terms of providing a real impression of the overall pattern of cultural development is suspect because of a tendency to simplify and generalize what is undoubtedly a very complex situation. In this case, however, we are dealing with a limited temporal and geographical unit in which there was a good degree of continuity and connection amongst the various phase populations. Acknowledgement and consideration of the broader aspects of cultural development, which are necessarily concomitant with changes in any single element of material culture, will be dealt with in the accompanying chapter; it being important at this point to demonstrate the essential pattern of change in this one element so as to construct a broad typological framework which can be used as a point of reference for further discussion and elaboration.

It would be well to note that at this stage it is not possible to establish this reality in the minutiae, but only in the overall trend patterning. And the following typological sequence, as well as the related qualitative and quantitative traits, should not be used as a precise scale of measurement for the classification or comparison of particular point forms. This interpretation is based upon a very limited sample, and much more data is needed so as to determine the range and extent of variability that existed within each period.

For my purposes, the sequence probably begins with the somewhat crude and very irregular straight to expanding stemmed points used by certain groups in southern and central Labrador between 4500-3000 B.P. (cf. Plate 8a-d). This form of projectile, associated particularly with the Graveyard site in southern Labrador (McGhee and Tuck, 1975a: 57; Plate 15a-d), and the Black Island 2 site in Hamilton Inlet (Fitzhugh, 1975: 122-124; Figure 3a-p), represents a change from the earlier straight and contracting stemmed points that involved a widening of the stem, to the point, in some cases, where it even could be classified as slightly notched. Points of this form have been found elsewhere in southern Labrador, near Forteau Point (McGhee and Tuck, 1975a: 60; Plate 16a-b), and at the Easter Settlement (Ibid: 54; Plate 14c); as well as in Newfoundland at the Curtis site in Twillingate (MacLeod, 1967), and at the Beaches site in

Bonavista Bay (Carignan, 1975: Plate 11h, and Plate 31c).

The first true notched forms, made of similar materials and manufactured with the same overall crudity, occur somewhat later, at about 3500-3000 B.P. at the Black Rock Brook site (Plate 8e). This form exhibits the same long, narrow and lanceolate blade form found in earlier specimens; however, the haft element now consists of a broad asymmetric side-notch with right angled shoulders and a partially thinned base. Similar points recovered as surface debris at Forteau Brook (Plate 8g), L'Anse Amour Area 10 (McGhee and Tuck, 1975a: 81; Plate 23c), and near the Pinware River (Elmer Lovett collection, Newfoundland Museum: cf. Plate 8f), probably relate to this cultural and temporal stage. A single specimen recovered at Bloody Bay Cove in Conception Bay, Newfoundland (Plate 8h), is also very similar and may, despite the geographical separation, be genetically akin to this form as well (Carignan, 1975: 137; Plate 36a).

By ca. 2900 B.P., at which time we get the first good evidence of occupation at Iceberg, the projectile points appear to have undergone considerable refinement, probably as a result of the use of Ramah chert rather than the coarse white chert and quartzite utilized by earlier peoples. At this point several changes can be noted, particularly in the blade and notch form. The side-notches are now quite well-defined and almost symmetrical; while the stem length in relation to the total length of the implement has

decreased somewhat (a trend that continues until the historic period), so as to produce a narrower notch with a notch angle of about 90' as opposed to the obtuse angled notches found in earlier specimens. Concomitant with changes in the haft element is a shift in the blade form from lanceolate to triangular, although the sides are still convex rather than being straight like the later specimens.

This form, which resembles the large and small side-notched projectiles found in Areas 3, 4a, and 5 at Iceberg (Plate 8i-l), also compares well with a number of undated projectiles found by Harp at Blanc Sablon (1962: Plate 1f), and several specimens found in central Labrador in the slightly earlier Brinex Complex (Fitzhugh, 1972: 143; Plate 53c).

By ca. 2400 B.P., the projectile points, as shown by the single specimen recovered from Area 2 at Iceberg (Plate 9a) have undergone further modification, especially in the notch element so that it now exhibits a slight corner-notch rather than a side-notch. In this case, the stem length/total length ratio has been further reduced to about one eighth, and the haft element consists of slightly barbed rather than oblique or right angled shoulders, with a narrow acute angled notch that begins immediately above the base.

A single white chert specimen, found at Iceberg (Diable 2) by Harp in 1963 (Plate 9b), has an even more pronounced corner-notch which I believe represents a further

development of this form along the same lines. Unfortunately, this specimen has not been dated, and as such we can only speculate as to the exact position of this form within the sequence.

We have no dated examples of the type of bifacial projectiles used by groups during the next few hundred years, although this hiatus is probably attributable more to inadequate sampling than anything else, as by the early centuries of the Christian era and continuing well into the period, the point form used by some groups in Labrador still conformed to the basic technological and stylistic character that marked the earlier periods. There were differences, of course, in both the blade and hafting elements; however, these differences represented only a further development of the same type of changes that were occurring at an earlier period.

Specifically, the blades are still triangular, but in most cases are now somewhat narrower with straight rather than convex sides. The stems are now only one eighth to one tenth of the total length of the implement, and the notch angle ranges between 20' to 40' so as to produce a very sharp side or corner-notch with slight to markedly barbed shoulders.

Points of this form (Plate 9c-1), have been found at Blanc Sablon, dated between ca. 1800-1100 B.P. (Harp and Hughs, 1968: 189-190), east of the Pinware River (Lovett collection, n.d.), the Big Island 1 site in Hamilton Inlet,

ca. 850 B.P. (Fitzhugh, 1972: 129; Plate 70a-d), in Newfoundland amongst collections attributed to the Beothucks, ca. 1850-360 B.P. (Devereux, 1970: 44; Plate 9b), and (Carignan, 1975: Plate 26a-f and k-o; Plate 33e-f; Plate 36b), and in Prince Edward Island in Late Woodland contexts (Maloney, n.d.).

In summary then, a continuous and consistent pattern of stylistic change in projectile point form can be detected and defined, which suggests that the variable forms of notched points found in Labrador during the last 3,000 years of Indian occupation were not introduced by different groups of people, but were genetically related developments produced within a single cultural tradition over time. In the process of this development many features such as the basal thinning, the straight or convex bases, and the grinding in the notches, remained unaltered; while other attributes, such as size and raw materials, exhibited no consistent pattern of either change or stability and were probably influenced by other unrelated factors. The changes that were representative of the overall character of this development are summarized below and in Figure 9.

Blade Form

Change from an irregular, narrow lanceolate form to a more symmetrical triangular blade with convex sides, and finally to a straight-sided narrow triangular form.

Shoulder Shape

The earliest specimens exhibit oblique shoulders which form an obtuse angle with the notch element; this is followed by straight shoulders which form right angles with the notch, and finally by barbed shoulders which form acute angles with the notch.

Notch Angle

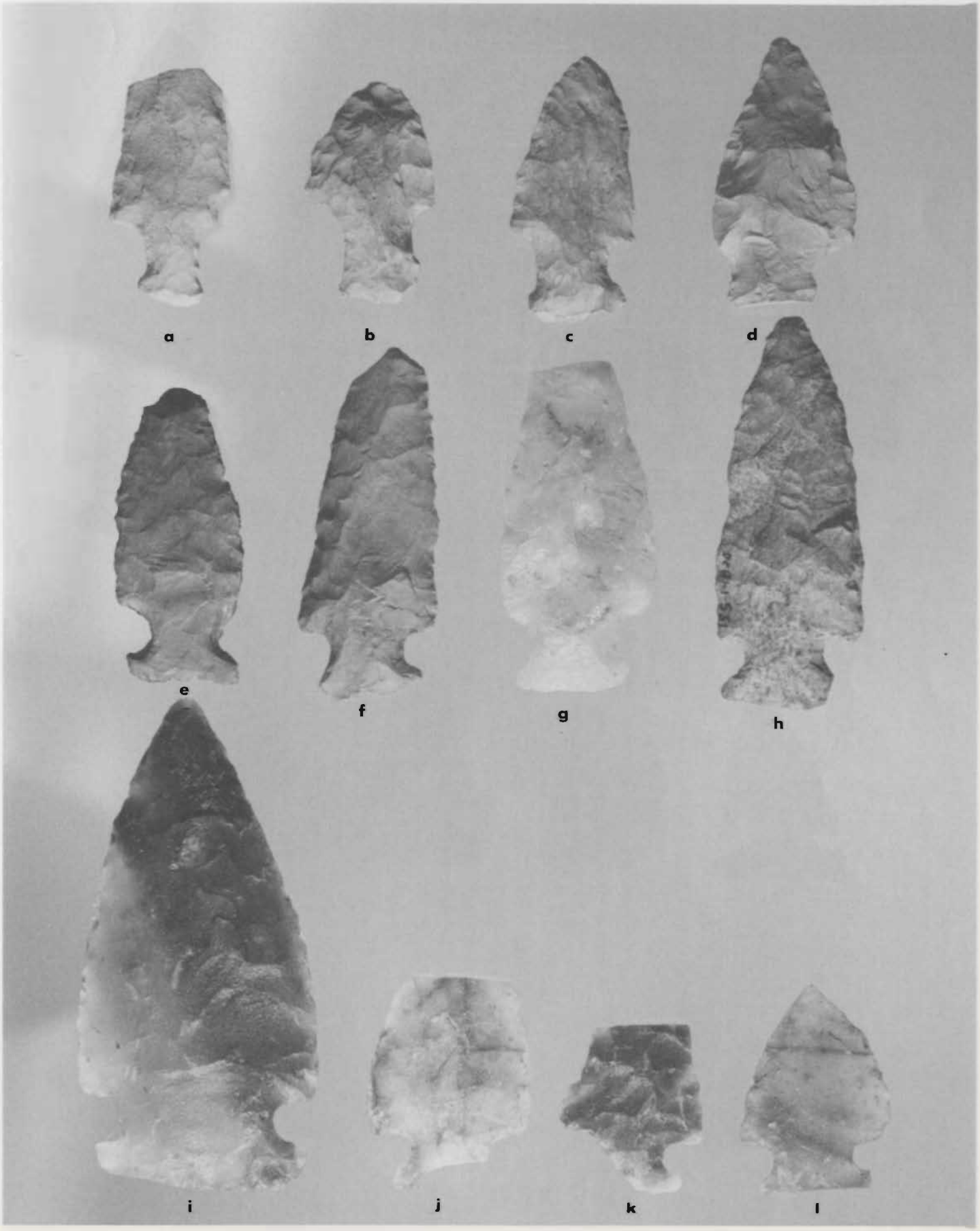
Concomitant with changes in the shoulder shape is a gradual and continuous reduction in the size of the notch angle, defined as that angle between two imaginary lines drawn from the midpoint of the notch concavity to the edge of the shoulder and the base. In the earliest examples this angle is broad and obtuse, ranging from 110-130°, while the latest specimens exhibit sharply acute angles ranging from 20-40°.

Stem/Total Length Ratio

The greatest change in this attribute occurred towards the earliest phases of the sequence, and is most striking if we compare the Graveyard examples (which have a ratio range of one third to one quarter), to the corner-notched specimen from Area 2 at Iceberg (which has a ratio of one eighth). Basically, the trend is towards the reduction of the stem length in relation to the total length of the specimen.

FIGURE 9

	Blade Form	Shoulder Shape	Notch Angle	Stem/Length Ratio	Examples
4000 B.P.	Irregular/Asymmetric Narrow Lanceolate Convex Sides	Oblique/ Obtuse Angled	120-130°	1/3	Forteau Point Graveyard Black Island 2 Beaches Curtis Site
3500 B.P.	Irregular/Symmetric Narrow Lanceolate Convex Sides	Oblique/ Straight Angled	110°	1/4	Black Rock Brook Bloody Bay Cove Forteau Brook
3000 B.P.	Symmetrical Triangular Convex Sides	Straight Right Angled	90°	1/6	Iceberg, Area 3 Iceberg, Area 4 Iceberg, Area 5 Brinex
2500 B.P.	Symmetrical Triangular Convex/Straight Sides	Slight Barb Acute Angle	80°	1/8	Iceberg, Area 2
2000 B.P.	Symmetrical Triangular Straight Sides	Barbed Acute Angle	60°	1/9	Iceberg, White Chert specimen
Historic	Symmetrical Narrow Triangular Straight Sides	Very Barbed Acute Angle	40-20°	1/8-1/10	Blanc Sablon Point Revenge Beothuck


a
b
c
d
e
f
g
h
i
j
k
l

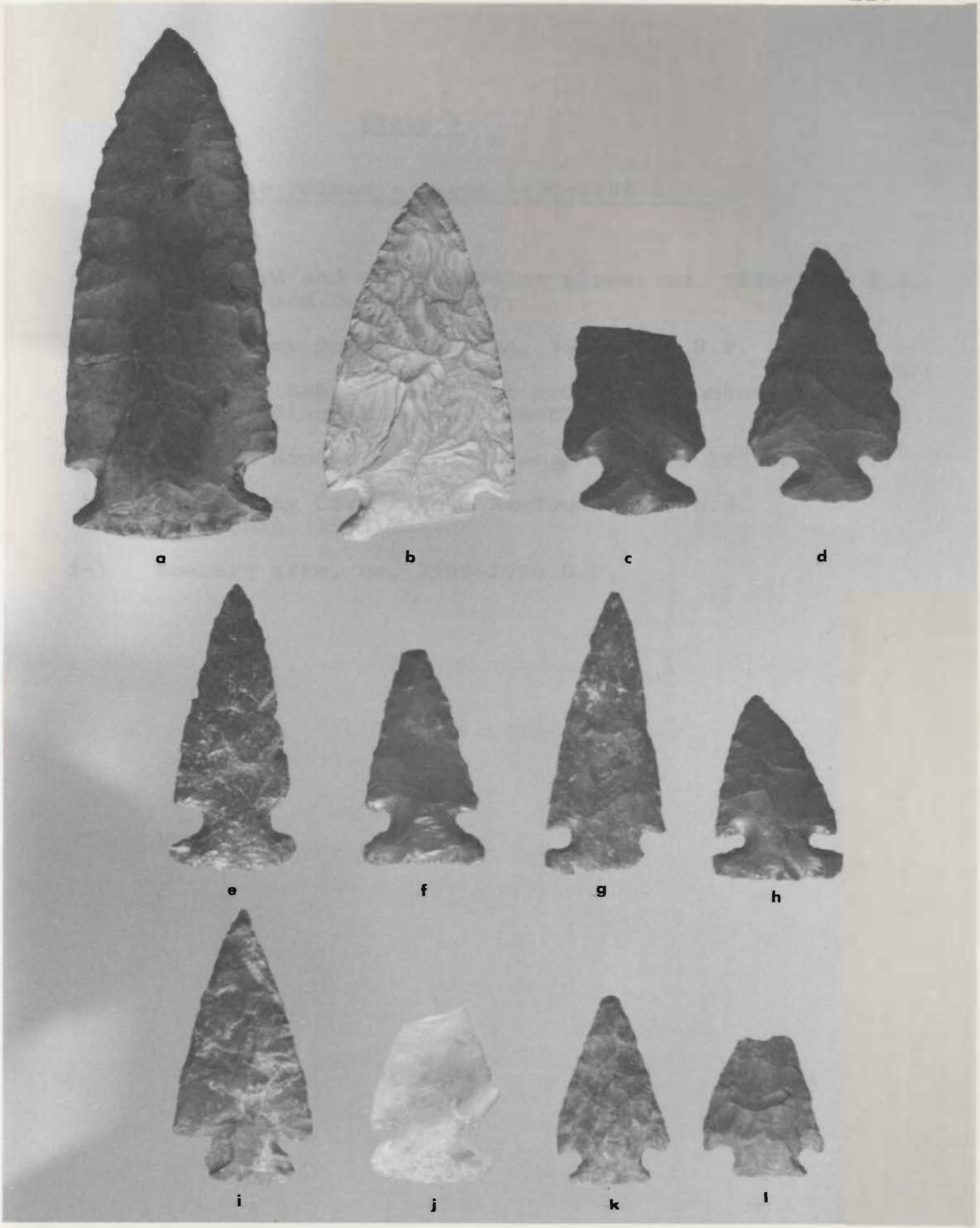

a
b
c
d
e
f
g
h
i
j
k
l

Plate 8

Projectile Points - circa 5000-2800 B.P.

a-d Graveyard and Forteau Point sites, ca. 5000-4200 B.P. (McGhee and Tuck, 1975a).

e Black Rock Brook site, ca. 3500-3000 B.P.

f Southern Labrador - exact provenance unknown, n.d. (Newfoundland Museum collection).

g Forteau Brook, n.d. (McGhee and Tuck, 1974 survey).

h Bloody Bay Cove site - Newfoundland, n.d. (Carignan, 1975).

i-l Iceberg site, ca. 2900-2700 B.P.

Plate 9

Projectile Points - circa 2800 - historic period

a Iceberg site, Area 2, ca. 2400 B.P.

b Iceberg site - exact provenance unknown, n.d.. (Harp, 1964).

c Southern Labrador - exact provenance unknown, n.d. (Newfoundland Museum collection).

d Prince Edward Island, n.d. (Maloney, personal communication).

e Southern Labrador - exact provenance unknown, n.d. (Newfoundland Museum collection).

f Unknown provenance, n.d. (Newfoundland Museum collection).

g-h Cape Freels site - Newfoundland, ca. 1800-1000 B.P. (Carignan, 1975).

i-l Beaches site, Beothuck component, n.d. (Carignan, 1975).

CHAPTER V

CULTURE HISTORY AND CONCLUSIONS

1. Introduction

The Strait of Belle Isle, unlike the central and northern regions of Labrador, witnessed an almost continuous and uninterrupted occupation by maritime adapted peoples for over 8,000 years, and a fairly detailed chronological and typological sequence outlining this cultural history has been constructed for a major portion of this period (McGhee and Tuck, 1975a and 1975b). Until recently, however, insufficient evidence had made it impossible to reconstruct the pattern of events which ensued during the latter 3,000 year period of this occupation; and although it was clear that the area was not entirely depopulated, the exact nature and extent of this occupation, as well as its relationship to the later historic populations in Newfoundland and Labrador, was unknown.

The Iceberg and Black Rock Brook sites together have yielded evidence of at least ten components spanning a period, ca. 3500-2000 B.P., which in addition to similar and presumably related materials found in other parts of Newfoundland and Labrador, has extended the period of known coastal occupation another 1,500 years.

The majority of these components undoubtedly belong to a single cultural and technological tradition which seems to have developed within this region from an earlier Maritime Archaic base, and can be considered part of a larger northern Maritime Cultural Tradition that probably endured on the Newfoundland and Labrador coasts from the Paleo-Indian period to the historic times.

The single component from Area 4b at Iceberg yielded materials which were quite distinctive in both form and manufacture so as to suggest temporal, if not cultural separation from the other components. Unfortunately, this material has not been dated and this, along with the paucity of artifactual debris and the absence of diagnostic markers, precludes reliable artifact comparisons or cultural associations at this time.

Consideration of both these manifestations shall comprise the content of the following pages so as to define regional and temporal variations and to construct a broad chronological framework to be tested, modified and elaborated upon by future research. Particular attention will necessarily be given to the dynamics of cultural development, with emphasis on those patterns of change which can be detected, measured and perhaps explained from available data, and to the relationship of these people to earlier and later known cultures within Newfoundland and Labrador.

2. A Late Maritime Cultural Tradition

The concept of a late Maritime Cultural Tradition has been proposed as a logical and necessary extension of Tuck's Maritime Archaic Tradition (1971: 350), to subsume those later but obviously related cultural groups who inhabited Newfoundland and Labrador from 4000 B.P. onwards.

These later manifestations differed somewhat from their predecessors in certain aspects of their cultural systems and note should be made of the absence of an extensive mortuary system, the reduction and eventual disappearance of the ground slate industry, and the use of notched instead of stemmed projectile points. On the other hand, the essential homogeneity that existed throughout this period in geographic distribution, adaptive strategy and overall technology is striking, and as such provides the best evidence for placing these different phase manifestations within the same cultural and historical tradition.

Strong typological continuities can be observed in the major tool classes including the bifaces, flake points, linear flakes and scrapers. However, perhaps the most conclusive evidence comes from a seriation of projectile point morphology in which a gradual and unbroken series of stylistic changes can be demonstrated from the earliest stemmed forms to the latest side-notched and corner-notched forms used by the historic populations.

There are, of course, no clear cut stages in this history; however, I have for the sake of clarity and discussion divided this period into two temporal phases. It would be well to keep in mind that limited research has been undertaken in many areas, with resultant uneveness in known data, and as such these divisions should be viewed only as arbitrary and artificial constructs. Such constructs are inadequate for the purposes of demonstrating the specific and detailed character of cultural development; however, they do allow us to deal with what little evidence we do have in a systematic manner, and as such provide a good and necessary introduction to the archaeology of the area.

Early Phase, Circa 5000-3800 B.P.

The earliest and most abundant evidence attributable to this phase of the Maritime Cultural Tradition comes from southern Labrador and includes material recovered from the Forteau Point site, ca. 5000 B.P., the Graveyard site, ca. 4500-4200 B.P., the L'Anse Amour 2 and 5 sites (surface collections), ca. 4200-4000 B.P. (McGhee and Tuck, 1975a and 1975b); as well as the later but obviously related manifestations found at the Black Rock Brook site, ca. 3500-3000 B.P., and the Iceberg site (Area 3b and 5 south), ca. 3500-3000 B.P. Identical materials, undoubtedly attributable to the same or related groups of people have also been found outside this area in Hamilton Inlet at the Black Island 2 site, ca.

4300-4100 B.P. (Fitzhugh, 1975), and in Newfoundland as part of a number of multicomponent sites including: the Beaches site, ca. 3500 B.P., the Fox Bar site, n.d., and the Bloody Bay Cove site, n.d., in Bonavista Bay (Carignan, 1975); the Curtis site in Twillingate, ca. 3700-3200 B.P. (MacLeod, 1967); and the Pittman site in White Bay, n.d. (Devereux, 1969; Linnamae, 1975).

There is good reason to believe that the Black Island occupation in central Labrador was temporary in nature (at least during this period), as there is evidence of another and completely distinctive cultural group (Rattlers Bight), in Hamilton Inlet by ca. 4100 B.P. On the other hand, the eastern extension into Newfoundland probably endured from this point onwards, and despite the fact that there is no specific artifactual evidence of occupation in this area following 3000 B.P. or so, I believe this is attributable more to inadequate sampling than actual population depletion.

Sites representative of this period and cultural phase consist primarily of small temporary encampments, the majority of which contain (depending on the intensity of occupation), varying numbers of shallow rock-lined hearths in association with small amounts of lithic debris and some charcoal. Except for the Black Rock Brook site, which yielded evidence of workshop activity, these sites provided little information on anything other than hunting or related

domestic endeavours, and reconstruction of the full range of cultural activities engaged in by these people is not possible except in terms of speculation.

Reconstruction of subsistence patterns is somewhat conjectural also, due to the lack of faunal data; however, the coastal location of these sites definitely suggests a maritime oriented economy, and most likely they were occupied during the spring and summer months for the purpose of exploiting available marine fauna. Additional support is also given to this supposition by the fact that similarly located earlier sites (L'Anse Amour Mound and the Fowler site), yielded artifactual and faunal material which attested to a strong sea mammal hunting orientation (McGhee and Tuck, 1975a).

There is no direct evidence of burials or cemeteries from sites related to these cultures in Labrador; but it is not unlikely that these people engaged in some sort of mortuary ceremonialism as similar expanding stemmed projectile points have been recovered from the burials at the Curtis site (MacLeod, 1967), and in several Maine cemeteries (Fitzhugh, 1975: 135).

The technology of these people is notable both for its simplicity and crudity, with felsites and coarse cherts (rhyolite in Newfoundland), being used almost exclusively in the production of chipped stone tool assemblages comprised primarily of lanceolate and leaf-shaped bifaces, linear

flakes, retouched flakes, and expanding stemmed or slightly notched projectile points. A larger number of these linear flakes exhibit marginal retouching denoting use as side or endscrapers; however, towards the later periods (ca. 3500 B.P.), these are joined and eventually replaced by small thumbnail uniface scrapers. Flake points occur on several of the sites, but are generally scarce and do not appear to have been as important as they would become in much later assemblages.

In Labrador only a few celt fragments have been found and there is no evidence of complete implements or other related gouge and adze tools. In fact, the ground stone and slate industry is very poorly represented, occurring if at all, only in the earliest stages and disappearing entirely following ca. 4000 B.P. Bone has not been preserved on any of these sites, although I suspect strong use was made of this material in the manufacture of hunting and fishing implements.

The exact nature and development of this particular complex is not completely understood, although there is enough evidence to support at least a few preliminary remarks bearing on its relationship to earlier and contemporaneous groups in the region.

Most noticeable and significant in this regard is the decided and marked difference between this complex and that of the classic 'Rattlers Bight' culture which was

developing in northern Labrador at about the same time (cf. Fitzhugh, 1972, 1975).

Past consideration of these different manifestations, no doubt due to the scanty and inconclusive nature of evidence relating to the notched point complex, has been vague and generalistic. Fitzhugh considers the 'notched point' complex, represented in Hamilton at the Black Island 2 site, to be an "anomalous intrusion" and probably unrelated to the developing Maritime Archaic Tradition in central and northern Labrador. He further suggests that this complex was probably a member of or strongly influenced by, another tradition or subtradition and with specific reference to the striking resemblances of this material to the Vergennes derived or Brewerton related assemblages in New York, suggests the possibility of influences from this direction in the third millennium B.C. to account for this complex (1975: 131).

Although I cannot deny the possibility that southern or other influences played a part in the development of this complex, and indeed this was probably one factor at least in the stylistic development of the notched form of projectiles, it certainly is not the entire explanation, nor does it shed any light on the specific origin and nature of this developmental process.

I do not believe that we have to go as far south as New York to discover either the origin or stimulus for the

development of this cultural complex. The source of the raw materials used by these groups and the geographic locus of the greater majority of the sites attributable to this complex was the Straits region, and I would suggest that it was here that the ancestors of these people can be found and the character of these cultural manifestations was formed. To be more specific, I further propose that this 'notched point' complex was a subtradition or phase variant of the Maritime Archaic Tradition, with its roots in southern Labrador where it developed from the same broad Early to Middle Archaic base which gave rise to the latter Rattlers Bight cultures in northern Labrador.

From this parent complex, represented in southern Labrador by the Juniper/Fowler material (McGhee and Tuck, 1975a and 1976b), and in central Labrador by the earliest Sandy Cove assemblages (Fitzhugh, 1972), ca. 5000-6000 B.P., there was apparently a divergence or regionalization in cultural development between the northern and southern groups.

While the southern groups maintained much the same adaptive strategy and technology of their predecessors involving a generalized seasonal exploitation of coastal resources and the use of local raw material (crude cherts and felsites), for the production of a somewhat crude and simple stone tool assemblage, the northern groups, following their initial movement and adjustment to the area some time after 6000 B.P., and in response to the excellent faunal

and lithic resources of the area, developed a very specialized and distinctive cultural system that involved intensive maritime exploitation and a technological system in which ground slate and Ramah chert played a major role in the production of a sophisticated and varied tool assemblage.

As for the course of this development, we have only to look at the southern counterpart of the Sandy Cove complex represented at the Juniper and Fowler sites, to get an indication of the impending trend of development, as even at this point in time there were differences in the southern complex which, although not distinctive enough to warrant separation from their northern counterparts, could provide the basis for divergent lines of cultural and technological development if other conditions (to be discussed later), were present.

Foremost in this regard is consideration of the change in projectile point morphology, and given the hiatus of over 1,000 years between the latest Juniper manifestations and the earliest Forteau Point and Graveyard material, it is not hard to envisage a development from the small crude quartz straight stemmed points to the larger but equally crude expanding stemmed forms manufactured by the Graveyard people (cf. Plate 8a-d, this volume). A similar generalized small stemmed point is also found in the Sandy Cove assemblages of central Labrador; however, these northern variants, especially in the later stages when Ramah chert was being

used, exhibit both finer workmanship and a greater frequency of contracting stemmed forms. And it is equally easy to demonstrate a completely different development in this area towards the large and finely worked contracting stemmed Rattlers Bight points.

Both these changes from a single, general stemmed form are primarily stylistic in nature, and as such the choice would probably depend to a great extent on the nature of the raw material used and the ease with which a suitable form could be manufactured. In this case, the difference in availability and usage of raw materials between the north and south would probably come into play, with the northern groups having access to Ramah chert while their southern relatives were forced to use the cruder local raw materials. The control provided by the fine hard-grained Ramah chert would allow for and even encourage the production of very thin and carefully worked Rattlers Bight point forms; while the crude felsites and cherts with their poorer flaking qualities would not.

It could be argued that Ramah chert was widely distributed throughout the northeast at this time as a result of trade with these northern peoples; however, evidence indicates that it actually occurred only in small quantities, usually in ceremonial contexts, outside the central core area and the difficulty of obtaining large amounts would undoubtedly make it more economically feasible for the

southern peoples to utilize local raw materials for the production of their domestic implements. This factor then, concomitant with probable influences from the south where notched forms were also being utilized, would foster the development of the crude expanding stemmed and notched forms in southern Labrador, while their northern neighbours created a more refined and totally distinctive type.

The same pattern of divergent development can be applied to other areas of the technology as well, and note should be made of the low frequency of ground stone and the almost negligible evidence of slate grinding in the early southern Labrador assemblages in comparison with their northern counterparts; for this seems to reflect a trend that would intensify in the later stages, with the northern peoples depending even more heavily on these industries, while the southern groups had dropped them entirely by ca. 3500 B.P. Investigators have frequently commented on the functional significance and adaptive advantage of ground slate implements in maritime cultures (Tuck, 1974; Fitzhugh, 1972). Alternatively, slate grinding would tend to disappear if it no longer had a function within the economical system, and the low frequency and eventual disappearance of this industry amongst southern groups undoubtedly denotes a slightly different exploitative pattern that probably involved a more generalized dependence on both coastal and interior resources.

We can only speculate as to the exact reasons for this divergence in cultural development, although certainly it was not due to a lack of awareness on the part of the southern folk as to the nature of cultural manifestations further north. Not only were they in close enough proximity geographically to have made at least occasional contact, but this period also marked the peak of the Maritime Archaic (Rattlers Bight phase) sphere of influence, when trade in Ramah chert, concomitant with widespread mortuary ceremonialism, affected and served to link (however superficially) a large number of coastal peoples from Massachusetts to Newfoundland. In fact there is even evidence, consisting primarily of a few Rattlers Bight-like points and some ground slate recovered from the surface, of sand blowouts at L'Anse Amour and near the Pinware River (McGhee and Tuck, 1975a), which may attest to the actual physical presence of these Rattlers Bight people in the Straits region. I doubt, however, that this represents a significant population shift or settlement on the part of these people.

Whether and why these southern 'notched point' peoples rejected or were not influenced by these northern groups is difficult to ascertain, but certainly there was some sort of barrier which prevented interaction at this time.

Perhaps the key lies in some sort of basic environmental difference in the two areas at this time. There is

good reason to believe, for instance, that there was probably a reduction in the southern limit of the ice pack distribution during the Hypsithermal, reflected in Labrador by a mild period between 6500-4000 B.P. (Fitzhugh, 1972: 178). During this period the annual pack ice extension into the Straits region would be less concentrated or present for shorter periods of time; and it is probably not unreasonable to assume some sort of reduction in the population of the larger marine fauna as well. Such a situation would probably not have constituted a serious threat to the survival of the human populations inhabiting this area, as these groups were certainly not dependent on any single resources; alternatively, however, it is doubtful if such a region would be able to support an intensive or specialized maritime adaptation either. Such conditions, then, would preclude an indigenous development towards a Rattlers Bight-like culture and discourage the movement of these people or the diffusion of their ideas into the area following their development elsewhere.

Following this period at around 3800 B.P., and concomitant with deteriorating climatic conditions (Jordan, 1975: 114), as well as social pressures resulting from the movement of Paleo-Eskimo peoples into northern Labrador (Tuck, 1975: 190), the Maritime Archaic groups in northern and central Labrador seem to have disappeared. This eventual extinction of the classic 'Rattlers Bight' phase manifestations

does not, however, represent the extinction of the Maritime Archaic Tradition in Newfoundland and Labrador, but only the demise of one phase or regional variant of this tradition.

In the Straits region, the southern 'notched point' people, perhaps having assimilated the last of the northern peoples, continued to occupy the coast and from this point in time a fairly good typological and chronological sequence can be constructed which denotes an unbroken continuum in occupation and cultural development by these groups along most of the coast, until the historic period.

It is interesting to note that the very specialized nature of the 'Rattlers Bight' adaptation probably undermined its very existence as it made these people especially susceptible to the vagaries of environmental change; while the marginal and generalized, but essentially more stable character of the southern cultural expressions, was the key to its persistence in this area.

Late Phase, circa 3000 B.P. to the Historic Period

Following 3000 B.P. or so, a number of important and distinctive changes can be noted in the archaeological assemblages of the Indian peoples who inhabited the Labrador coast which I believe are significant enough to warrant the designation of a new phase of cultural development at this point.

These changes do not appear to have significantly affected the overall economic system, and aside from variances in the intensity of maritime exploitation and coastal occupations at particular times, there is little reason to suggest any alteration in the basic maritime/interior adaptive pattern followed by earlier groups. On the other hand, there were significant shifts within the technological tradition, the nature and development of which must be understood if we are to demonstrate continuity between the earliest and latest manifestations in these areas.

Sites relating to this phase of the Maritime Archaic Tradition are distributed within a very broad temporal framework. At the earliest end of the sequence we have what are probably the immediate descendants of the Black Rock Brook and Iceberg people, represented in central Labrador by sites of the Charles and Brinex complex, ca. 3100-2900 B.P. (Fitzhugh, 1972), and in southern Labrador by the five latent components at the Iceberg site spanning the period ca. 2900-2000 B.P.

Materials recovered from Blanc Sablon, ca. 1800-1100 B.P. (Harp, 1964; Harp and Hughes, 1968), and at Hamilton Inlet in the context of the Point Revenge complex, ca. 850 B.P. (Fitzhugh, 1972), undoubtedly represent later but related expressions of these same maritime cultures.

The first evidence of these people on the island of Newfoundland comes from the northeast coast where a variety

of side-notched and corner-notched projectile points and triangular bifaces, comparable to the Blanc Sablon and Point Revenge material, have been found at the Cape Freels 1 and 2 sites, ca. 1800-1000 B.P. (Carignan, 1975: 137). Other corner-notched points and triangular bifaces recovered from a prehistoric Beothuck component at the Indian Point site, ca. 360 B.P. (Devereux, 1970), and the undated Beothuck components at the Beaches site, the Bloody Bay Cove site, and the Fox Bar site in Bonavista Bay (Carignan, 1975), are identical and undoubtedly related to these earlier Newfoundland and Labrador materials, and attest to continued occupation within this area by the same related Indian groups.

The absence of sites from Newfoundland dating to the early stages of this period is probably more a reflection of the poor state of our knowledge of this area than anything else. There seems to have been continual contact and interaction across the Straits, as evidenced by the discovery of similar materials in both areas from 4000 B.P. onwards, and it is likely that this situation endured, albeit with varying degrees of intensity, into the historic period.

Probably the most important and interesting factor to be dealt with in regards to understanding the course of cultural development during the late phase of the Maritime Cultural Tradition was a change in the use of raw materials

with the introduction and eventually almost exclusive use of Ramah chert--along with a variant but similar 'Iceberg chert' some 500 years later--in place of the crude felsites and coarse cherts utilized by earlier groups in the area.

Prior to this period Ramah chert was found in the Straits only in the context of intrusive or foreign cultural elements and associations related to the movement of or trade with the Rattlers Bight people of central and northern Labrador, with the indigenous southern peoples depending primarily on local raw materials for the production of their domestic implements. These raw material usage patterns strongly suggest that the movements and interaction spheres of these peoples were confined within the Straits region, eastward to Newfoundland and possibly south of the St. Lawrence, with as little contact as possible with the northern regions.

The situation was not an enduring one, however, and the appearance of Ramah chert as an important raw material in southern Labrador assemblages following 3000 B.P. is undoubtedly indicative of expanded territorial horizons involving movement to and familiarity with the northern coast and its lithic resources.

One of the earliest movements of these people into the northern regions is probably represented by sites of the Charles and Brinex complexes which have been found in Hamilton Inlet, and which typologically and chronologically

seems to lie somewhere between the latest Black Rock Brook and earliest Iceberg material. That this was a pioneering occupation is attested to by the complete absence of similar occupations in this area prior to this period, along with the fact that these people were still obviously unfamiliar with the Ramah sources located just to the north.

The reason for this expansion and dispersion of southern peoples at this time is certainly not clear, although it is probably more than a coincidence that it did not occur until after the Rattlers Bight people had left these areas. On the other hand, there is nearly a 600 year gap between the last of the Rattlers Bight occupations and the first appearance of the southern 'notched points' peoples in this area which suggests that other, yet undetermined factors, probably influenced these developments as well.

Whatever the case, it was probably not long after this period that the Ramah chert quarries were rediscovered and utilized, as it appears as the dominant raw material at the Iceberg site in southern Labrador by at least ca. 2900 B.P. and continued to be used, at least in Labrador, for the next 2,000 years.

It is doubtful whether Ramah chert ever achieved dominance as a raw material in Newfoundland. To date, only miniscule amounts have been found on the island and it appears that the relative geographic isolation made it more economically feasible to utilize other fine-grained cherts

obtainable within the province. Despite these differences, however, fairly tight typological and chronological parallels can still be drawn between the two regions, and I do not doubt that development amongst these obviously related groups of people occurred along the same general lines in both areas.

The effect of the introduction of Ramah and other fine-grained cherts on subsequent technological development was great, and undoubtedly accounts for the apparent stylistic differences between the earliest local expressions of the cultures, such as the Brimex complex, and the later manifestations found at the Iceberg and Point Revenge sites. These assemblages are characterized by the same basic tool forms found with earlier groups (Black Rock Brook and Black Island 2), and strong typological continuities can be observed in the major tool forms, including the notched points, the tiny flake points, the biface forms, and the linear flakes, at least in the early stages.

On the other hand, there were differences, the most notable of which was the marked improvement in the quality of the lithics, with the artifacts being somewhat smaller and of finer workmanship than those produced in the earlier periods. There was also an increase in the quantity and variety of unifacial implements, including the flake points, which at Iceberg become very important just prior to the Christian era; and no doubt these changes are also related to the finer flaking quality of this material which

encouraged the manufacture of such thin but effective implements.

Other changes not so directly related to the use of this material, but nevertheless significant in terms of understanding the overall character of these cultural configurations can also be observed. Unifacial scrapers, which by this time were somewhat larger in size, became much more important; while the linear flake industry, perhaps as a consequence of the increasing importance of the former, was definitely waning and by the first centuries of the Christian era had disappeared entirely. Finally, but most important in terms of outlining the sequence of culture history, are the stylistic differences observable in the projectile point forms, which by around 2900 B.P. were much more regular in appearance with triangular convex/straight sided blades, and broad, definite and symmetrical side-notches (cf. Plate 8i-l).

The specifities of these developments can be fairly well demonstrated from this point until the Christian era, during which time the overall character of these cultural manifestations seems to have remained fairly stable in terms of geographic distribution, adaptive pattern, and technolgoy.

Unfortunately, materials relating to those years following this period are scarce. Aside from the data recovered from the few discrete sites of the Point Revenge complex in Hamilton Inlet, the greater number of artifacts (consisting primarily of projectile points), come from

surface collections (Blanc Sablon and east of the Pinware River), or from mixed multicomponent sites (Beaches, Cape Freels, Fox Bar, Bloody Bay Cove, etc.); and as such any conception or interpretation of these 'proto-historic' cultures is undoubtedly generalistic, and inadequate for the purposes of discerning detailed technological continuity and demonstrating conclusive and specific relationships amongst the various groups.

On the other hand, despite the drawbacks and obvious gaps in our knowledge, the overall trend patterning of technological development can still be discerned through a comparison of the major tool forms found with the few representative occupations from this period. In this case, continuities between these later cultures and the earlier Iceberg folk can be seen in the continuing use of Ramah chert (at least in Labrador), flake points, identical lanceolate and leaf-shaped bifaces, unifacial scrapers, and of course the side-notched and corner-notched projectile points. The latter, being the most abundant and diagnostic implement, undoubtedly provides the best evidence in this regard, as a series of stylistic changes in the blade and notch elements can be demonstrated from the earliest Iceberg varieties to the very narrow side-notched or corner-notched forms used by those people of the Point Revenge complex, as well as by their Newfoundland neighbours in Bonavista Bay between 1800-1000 B.P. (cf. Plate 9g-h, this volume).

The arrival of the Ivuktoke (Thule) Eskimos during the fifteenth and sixteenth centuries (Fitzhugh, 1973: 193), marked the end of the Maritime Archaic occupation along the Labrador coast, and by the later historic period only small groups of interior Montagnais and Nascapi peoples, who were making brief and occasional forays to the coast from time to time, could be found in this region. These Eskimo people apparently never made it to Newfoundland, however, and there is good reason to believe that the Indian population there, their ranks no doubt swelled by related immigrant groups from the mainland, persisted on this island for several more centuries.

Our knowlege of these people at this point in time is poor, in fact there is nearly a 700 year gap between the latest Cape Freels occupation and the next evidence of these people on the island. This evidence, which is comprised of a variety of corner-notched points, stemmed knives and points, leaf-shaped and triangular knives, large flake knives and small snubnosed scrapers, recovered from the prehistoric Beothuck component at the Indian Point site (Devereux, 1970), as well as similar but undated side-notched and corner-notched points and triangular bifaces found at the Beaches site (Carignan, 1975), is comparable if not identical to earlier dated materials from Newfoundland and Labrador. Flake points are not known in these assemblages; however,

micro-points are found and it could be suggested that these may have derived from and assumed the function of the former. Similarly, it is possible to posit that the distinctive snubnosed scrapers developed from earlier flake scrapers.

Given the limited geographical and temporal context within which these manifestations occurred, I do not doubt that these proposed technological similarities and inferred typological continuities have a historic and cultural basis, and that these historic Beothuck groups were the descendants of those Maritime Indian people represented at the earlier Beaches, Cape Freels and Fox Bar sites in Newfoundland, as well as the Point Revenge cultures in Labrador.

Conclusions

The foregoing discussion and reconstruction of a cultural sequence and chronology for the latter 3,000 year period of Indian occupation in Labrador and Newfoundland (derived as it is from very limited evidence), necessarily represents a simplistic, very speculative and broad assessment of available data.

It has been asserted that Indian occupation and cultural development was fairly constant and continuous along the Newfoundland and Labrador coasts until the early historic period. However, there are obvious gaps in our knowledge which must be accounted for if we are to grasp the essential character of these cultures and accurately assess the real

and specific pattern of cultural development, interaction and change within this broad temporal, spatial sphere.

Our knowledge of the last 1,500 years prior to contact needs expansion and clarification; data directly concerning dwelling structures, settlement patterns and subsistence economics remains to be elucidated; and a larger representative artifact sample from all periods is required so as to determine the full range and extent of variability that existed within the technological tradition.

As it stands, then, the proposed cultural succession can only be tended as a workable hypothesis. Given the present inadequate state of our knowledge, it cannot definitely be demonstrated and perhaps with more new data it will be invalidated; however, it provides us with many questions and establishes a point from which we can orient future research. More and better work is needed before we can say any more.

BIBLIOGRAPHY

Carignan, Paul C.

1975 The Beaches: A Multicomponent Habitation Site in Bonavista Bay. National Museum of Man, Mercury Series Paper, No. 39. Ottawa.

Devereux, H.E.

1969 Five Archaeological Sites in Newfoundland: A Description. On file, Department of Provincial Affairs, Province of Newfoundland and Labrador.

1970 A Preliminary Report on the Indian Point site, Newfoundland: A Stratified Beothuck Site. On file, National Museum of Man, Ottawa.

Fitzhugh, William A.

1972 Environmental Archaeology and Cultural Systems in Hamilton Inlet, Labrador. Smithsonian Contributions to Anthropology, No. 16. Washington, D.C.

1974 Hound Pond 4: A Charles Complex Site in Groswater Bay, Labrador. Man in the Northeast, Vol. 7, pp. 87-103.

1975 A Maritime Archaic Sequence from Hamilton Inlet, Labrador. Arctic Anthropology, Vol. 12, No. 2, pp. 117-138. Wisconsin.

n.d. Maritime Archaic Occupations of the Central Labrador Coast in Regional Perspective. Smithsonian Institute. Unpublished paper at Memorial University of Newfoundland.

Fong, C.K.

n.d. Paleontology of the Lower Cambrian Archaeocytha - Bearing Forteau Formation in Southern Labrador. M.Sc. Thesis, Memorial University of Newfoundland, 1969.

Hare, F. Kenneth

1952 The Climate of the Island of Newfoundland: A Geographic Analysis. Department of Mines and Technological Surveys, Geographical Bulletin, No. 2, pp. 35-88, Ottawa.

1959 A Photo-Reconnaissance Survey of Labrador-Ungava. Department of Mines and Technological Services, Memoir No. 6. Ottawa.

1966 Recent Climatological Research in Labrador-Ungava. Cahiers de Geographie de Quebec, Vol. 19, pp. 5-12.

Hare, F. Kenneth, and Morley K. Thomas

1974 Climate Canada. Wiley Publishers of Canada Limited, Toronto.

Harp, Elmer, Jr.

1951 An Archaeological Survey in the Straits of Belle Isle Area. American Antiquity, Vol. 16, No. 3, pp. 203-220.

1964 Evidence of Boreal Archaic Cultures in Southern Labrador and Newfoundland. National Museum of Canada Bulletin, No. 193, pp. 184-261. Ottawa.

Harp, Elmer, Jr., and David Hughes

1965 Five Prehistoric Burials from Port aux Choix, Newfoundland. Polar Notes, Occasional Publications of the Stefansson Collection, Vol. 8, pp. 1-47. Hanover, N.H.

Howley, J.P.

1915 The Beothucks or Red Indians - The Aboriginal Inhabitants of Newfoundland. Cambridge University Press, Cambridge.

Jordan, Richard

1975 Pollen Diagrams from Hamilton Inlet, Central Labrador, and Their Environmental Implications for the Northern Maritime Archaic. Arctic Anthropology, Vol. XII, No. 2, pp. 92-117. Wisconsin.

Kidder, Alfred V.

1927 Eskimos and Plants. Proceedings of the National Academy of Sciences, Vol. 13, pp. 74-75.

LeBlanc, Raymond J.

n.d. The Wigwam Brook Site and the Historic Beothuck Indians. Unpublished M.A. Thesis, Department of Anthropology, Memorial University of Newfoundland, St. John's, 1973.

Linnemae, Urve

1975 The Dorset Culture: A Comparative Study in Newfoundland and the Arctic. Technical Papers of the Newfoundland Museum, No. 1. St. John's.

Lloyd, T.G.B.

1874 On the Beothucks. Journal of the Royal Anthropological Institute of Great Briatin, No. 4, pp. 21-39.

MacLeod, Don

1967 A Red Paint Burial Site in Northeastern Newfoundland. Paper presented to the Society for American Archaeology, 32nd Annual Meeting, Ann Arbor, Michigan.

McGhee, Robert, and James A. Tuck

1975a An Archaic Sequence from the Strait of Belle Isle, Labrador. National Museum of Man, Mercury Series Paper, No. 34. Ottawa.

1975b Archaic Cultures in the Strait of Belle Isle Region, Labrador. Arctic Anthropology, Vol. 12, No. 2, pp. 76-92. Wisconsin.

Mansfield, A.W.

1959 The Walrus in the Canadian Arctic. Fisheries Research Board of Canada, Circular No. 2. Ottawa.

1963 Seals of Arctic and Eastern Canada. Fisheries Research Board of Canada. Bulletin 137. Ottawa.

Martijn, Charles A., and Edward S. Rogers

1969 Mistassini-Albanel: Contributions to the Prehistory of Quebec. Centre d'Etudes Nordiques, Travaux Divers 25. Quebec.

Renouf, Priscilla

n.d. A Late Paleo-Indian/Early Archaic Sequence in the Strait of Belle Isle. Unpublished M.A. Thesis, Memorial University of Newfoundland, St. John's, 1976.

Sergeant, D.E.

1961 Whales and Dolphins of the Canadian East Coast. Fisheries Research Board of Canada, Circular No. 7. Ottawa.

Tanner, Voino

1944 Outlines of the Geography, Life and Customs of Newfoundland-Labrador. (The Eastern Part of the Labrador Peninsula). Acta Geographica, 8 (1), Helsingfors, Helsinki.

Tuck, James A.

1971 An Archaic Cemetery at Port aux Choix, Newfoundland. American Antiquity, Vol. 36, No. 3, pp. 343-358. Washington.

1973 Prehistory of the Atlantic Provinces. Paper read at the Sixty Annual Meeting of the Canadian Archaeological Association, Simon Frazer University.

1975a Prehistory of Saglek Bay, Labrador: Archaic and Paleo-Eskimo Occupations. National Museum of Canada, Mercury Series Paper, No. 32. Ottawa.

1975b The Northeastern Maritime Continuum: 8000 Years of Cultural Development in the Far Northeast. Arctic Anthropology, Vol. 12, No. 2, pp. 139-147. Wisconsin.

PLATES

Plate 10

The Iceberg Site - Area 4, looking east

Plate 11

The Iceberg Site - Area 1 (Feature 1)

a	Large lanceolate biface
b	Small triangular biface
c-g	Leaf-shaped bifaces
h	Small lanceolate projectile
i-j	Flake projectiles
k	Concave scraper
l	Flake scraper
m-n	Linear flakes
o-q	Retouched flakes


a
b
c
d
e
f
g
h
i
j
k
l
m
n
o
p
q

Plate 12

The Iceberg Site - Area 1 (Feature 2 and 8)

a	Small lanceolate biface
b	Leaf-shaped biface
c	Large lanceolate biface base
d	Bipointed biface
e	Perforator
f-h	Small lanceolate projectiles (preforms)
i	Broad side-notched projectile
j-k	Projectile basal fragments
l-n	Flake projectiles
o	Flake knife
p	Concave scraper
q-r	Linear flake fragments
s	Retouched flake

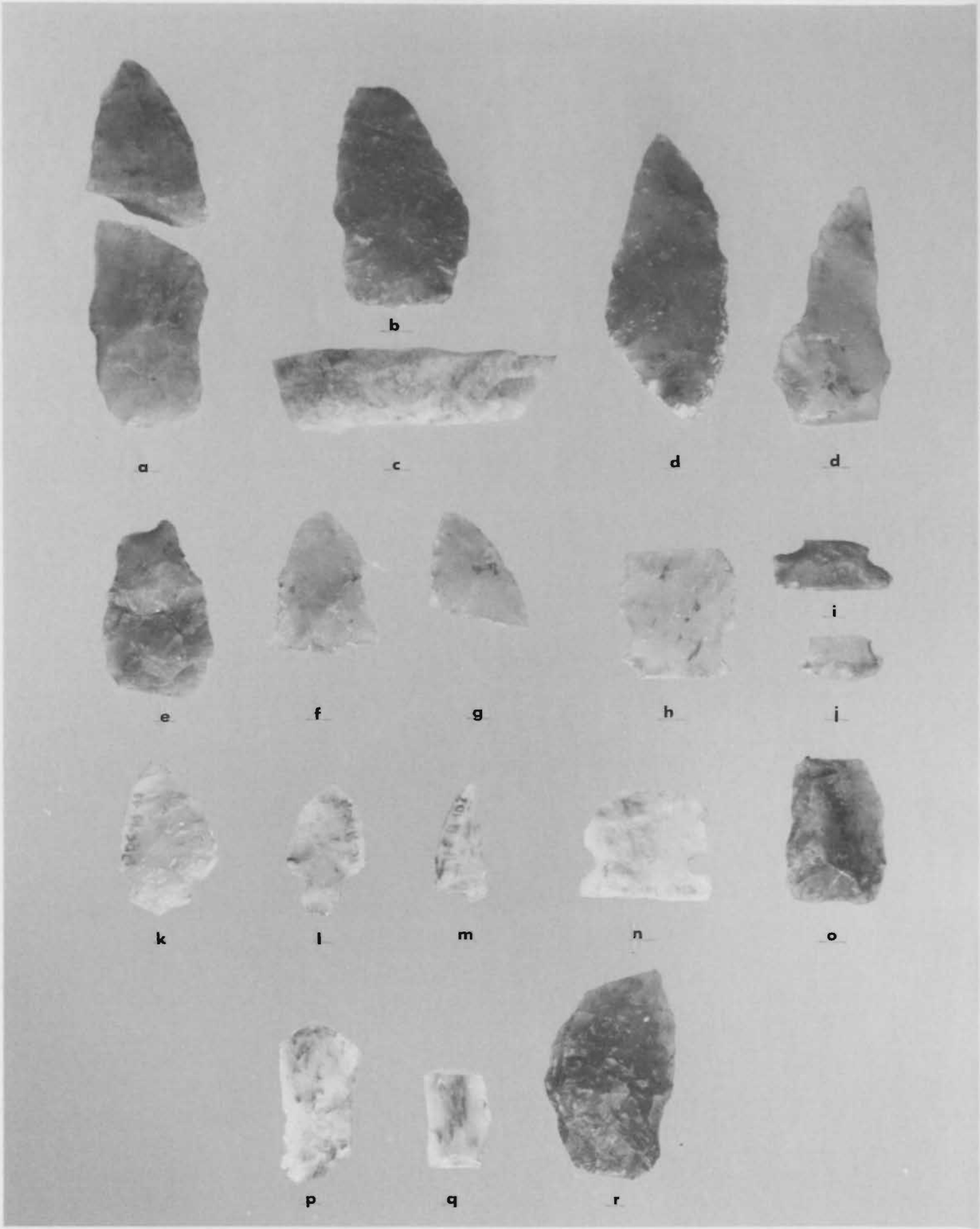

a
b
c
d
d
e
f
g
h
i
j
k
l
m
n
o
p
q
r

Plate 13

The Iceberg Site - Area 2

a Large lanceolate biface base

b Small lanceolate biface

c Large corner-notched projectile

d Flake projectile

e Flake knife

f-g Linear flakes

The Iceberg Site - Area 3a

h Leaf-shaped biface

i-j Miscellaneous biface fragments

k Small side-notched projectile

l-m Point basal fragments

n-o Flake scrapers

p Flake graver

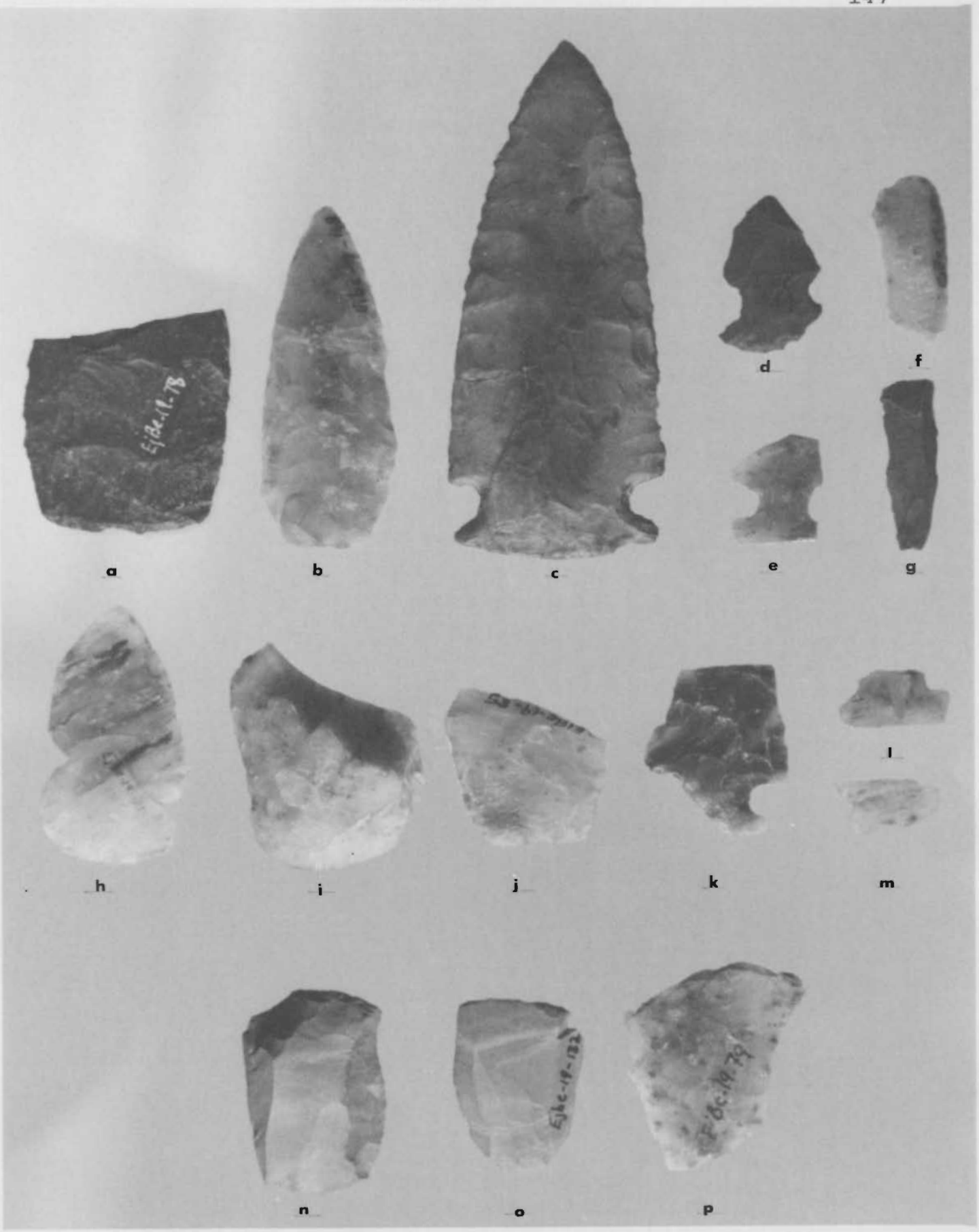

a
b
c
d
e
f
g
h
i
j
k
l
m
n
o
p

Plate 14

The Iceberg Site - Area 3b

a Large lanceolate biface base

b-c Leaf-shaped bifaces

d Large triangular biface

e-h Linear flakes

i-l Retouched flakes

Plate 14

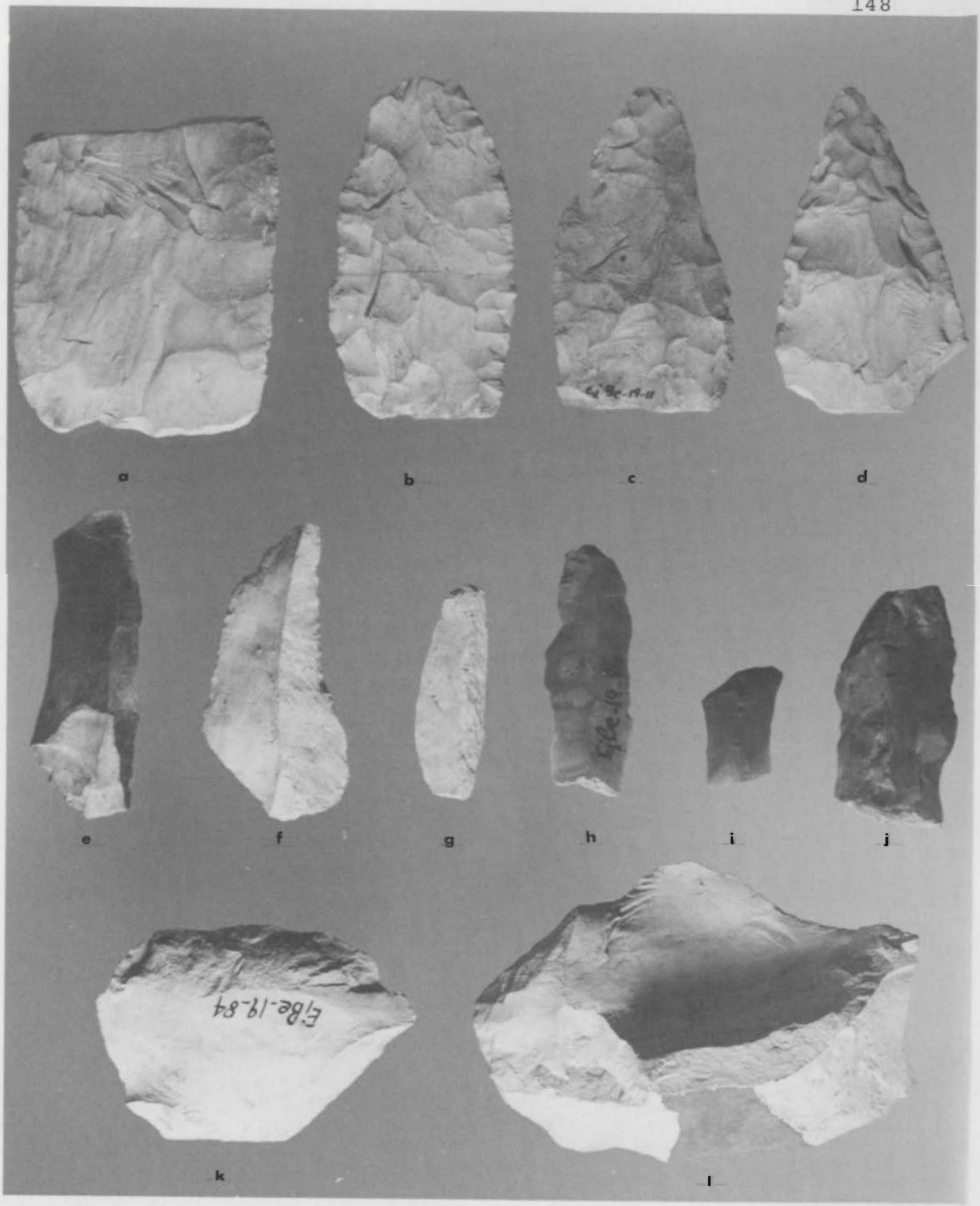


Plate 15

The Iceberg Site - Area 4a

a-d	Leaf-shaped bifaces
e	Notched biface
f	Reworked projectile base
g	Small side-notched projectile
h-i	Point basal fragments
j-k	Endscrapers
l	Flake graver
m	Flake scraper
n-o	Linear flakes
p-r	Retouched flakes


a
b
c
d
e
f
g
h
i
j
k
l
m
n
o
p
q
r

Plate 16

The Iceberg Site - Area 4b

a	Large ovate biface
b	Bipointed biface
c-f	Leaf-shaped bifaces
g-h and k-l	Miscellaneous biface tip and basal fragments
i-j	Preforms

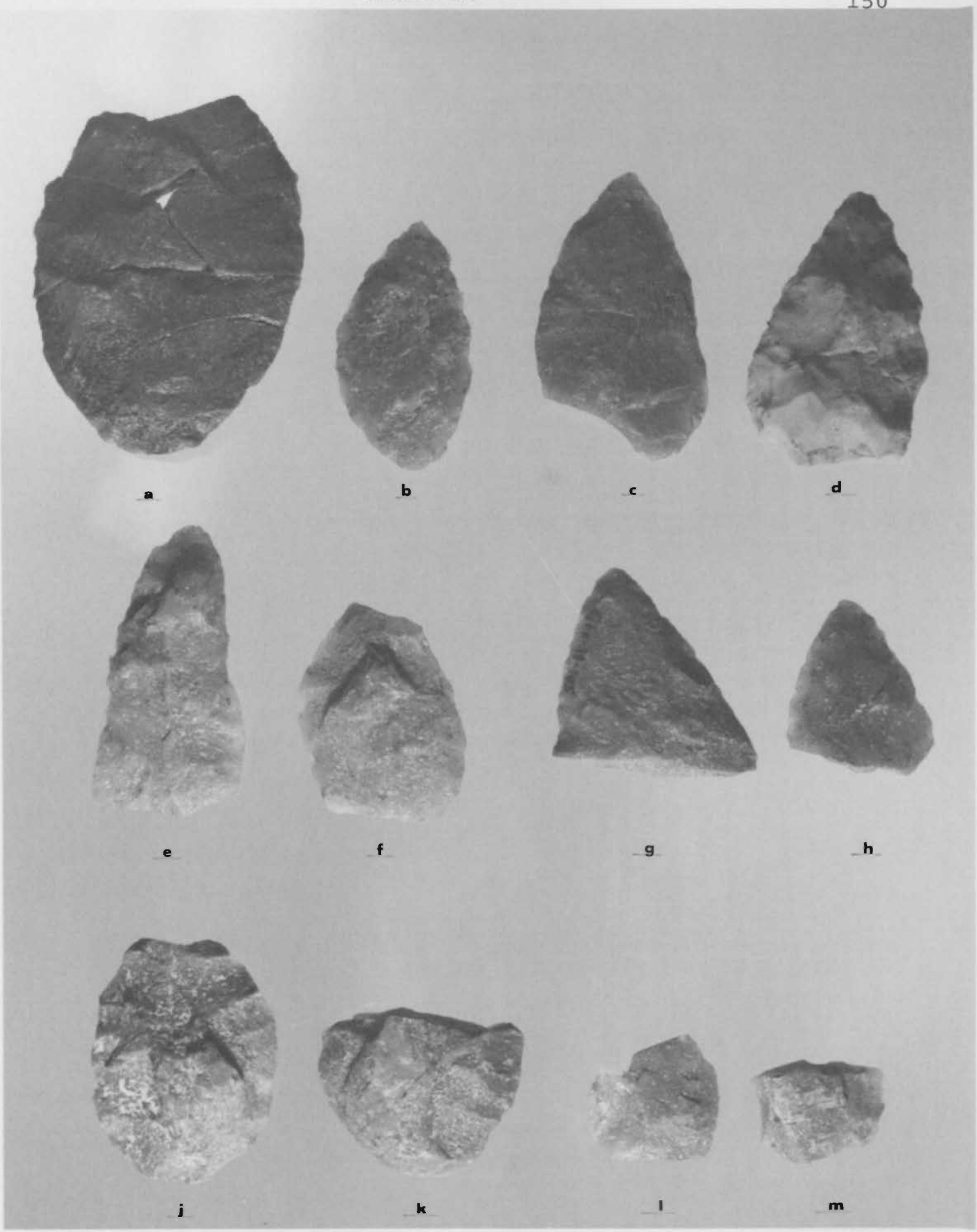

a
b
c
d
e
f
g
h
j
k
l
m

Plate 17

The Iceberg Site - Area 5

a-b	Leaf-shaped bifaces
c	Miscellaneous biface basal fragment
d	Large lanceolate projectile
e	Large side-notched projectile
f	Broad side-notched projectile
g	Small side-notched projectile
h	Flake knife
i	Linear flake
j-m	Retouched flakes

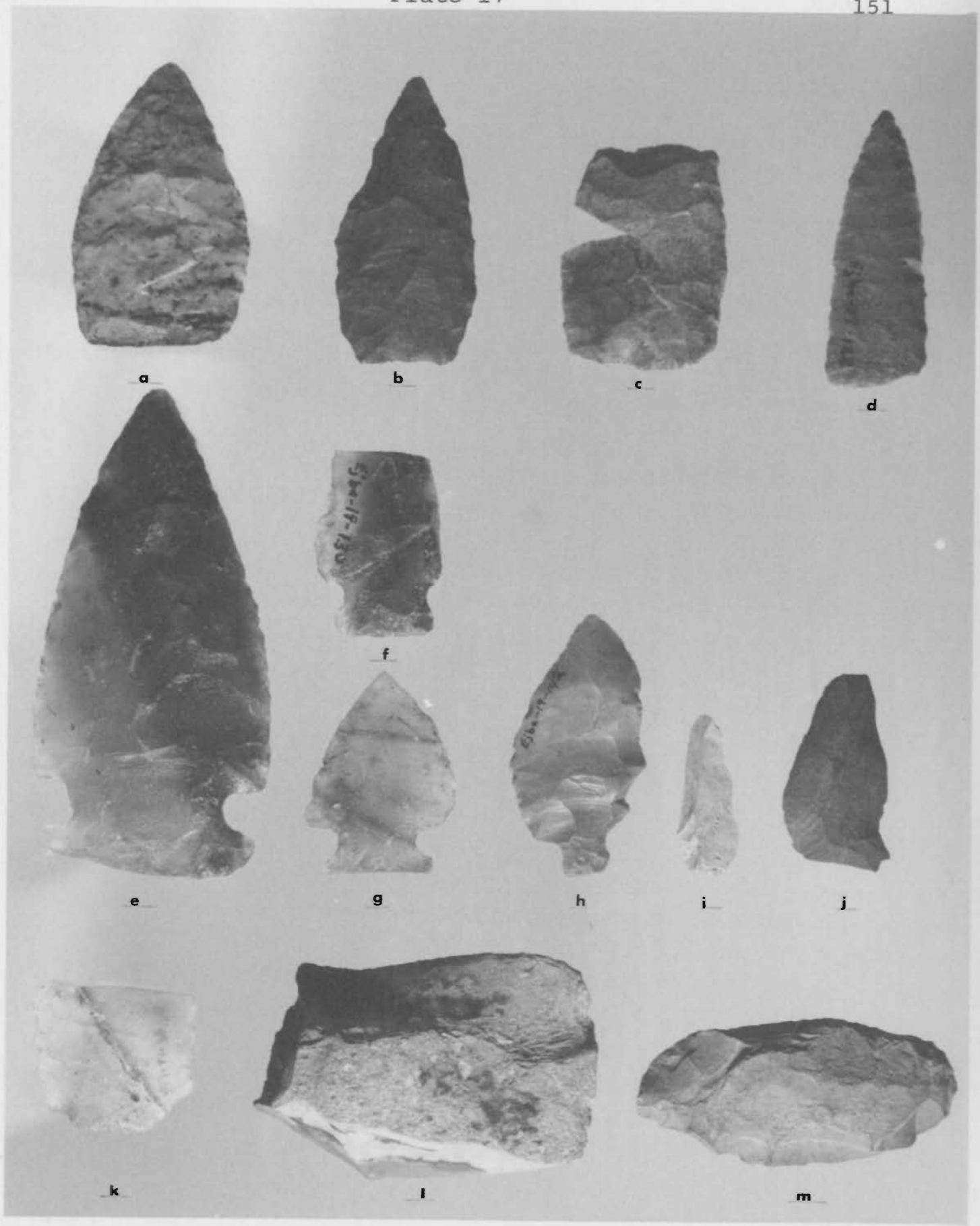

a
b
c
d
e
f
g
h
i
j
k
l
m

Plate 18

The Black Rock Brook Site

a-d	Lanceolate bifaces
e-f	Preforms
g	Projectile point blade fragment
h	Side-notched projectile point
i	Drill fragment
j-n	Endscrapers

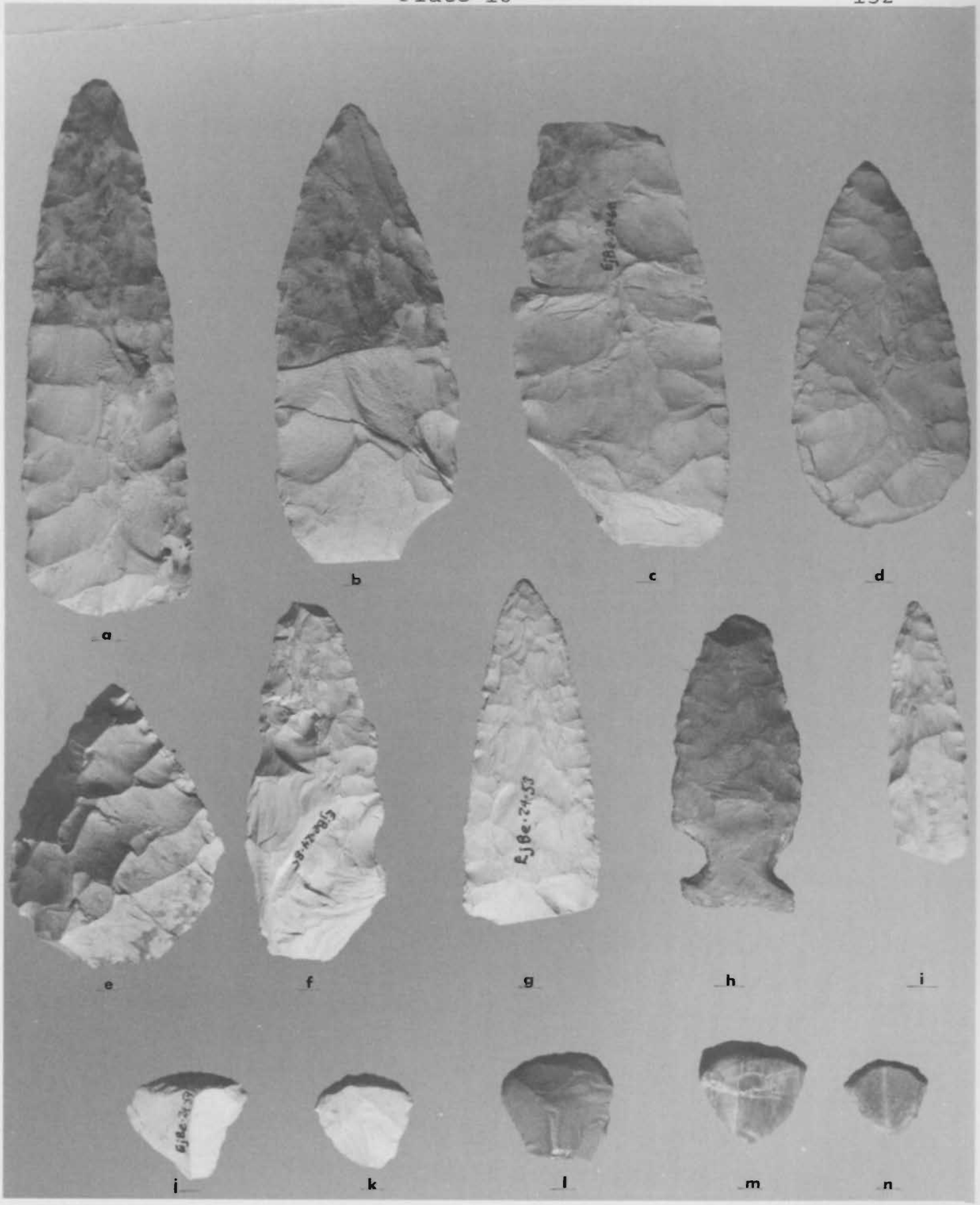

a
b
c
d
e
f
g
h
i
j
k
l
m
n

Plate 19

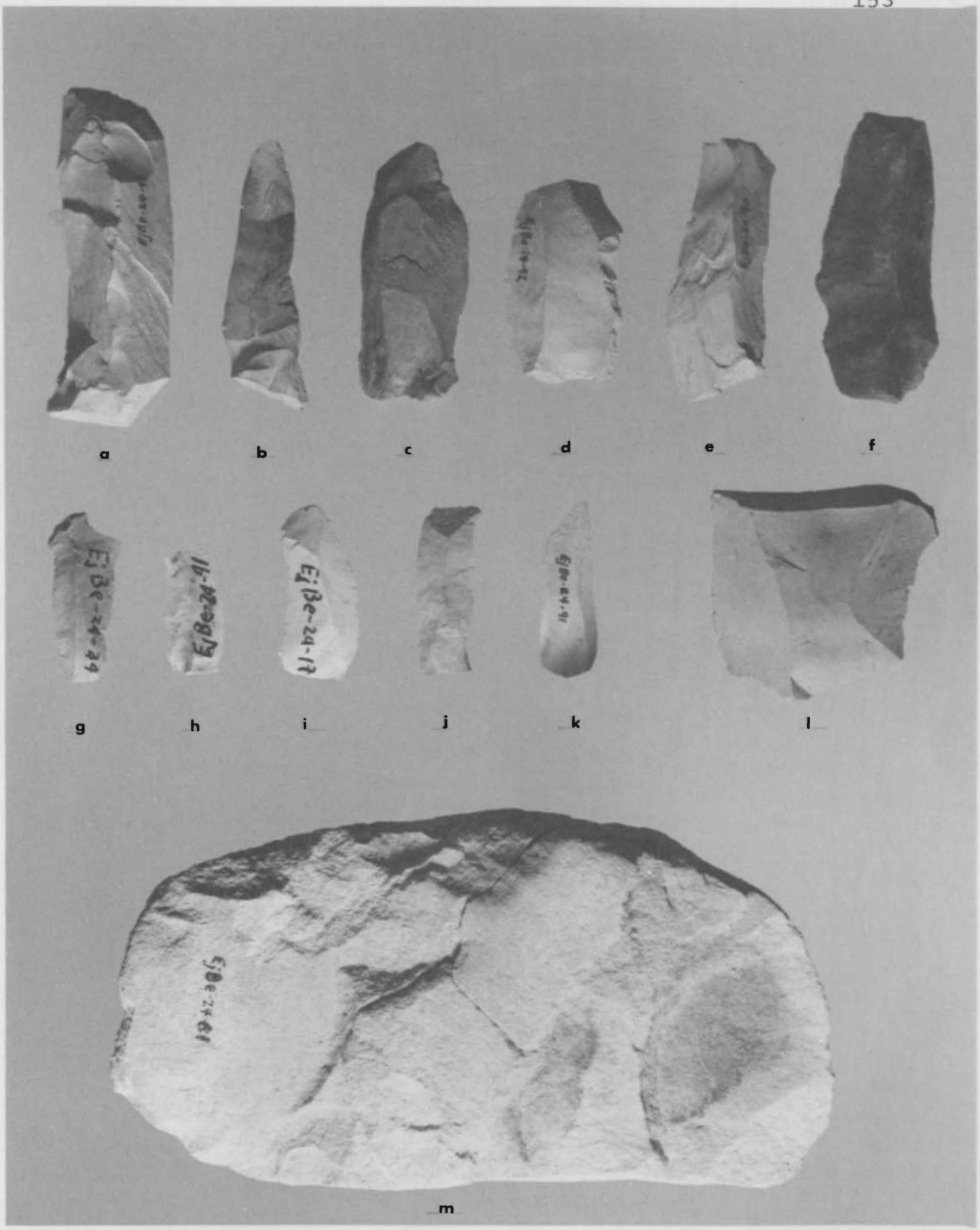
The Black Rock Brook Site

a-d Linear flakes (retouched)

e-k Linear flakes (unaltered)

l Flake scraper

m Whetstone


a
b
c
d
e
f
g
h
i
j
k
l
m

APPENDIX A

LIST OF RADIOCARBON DATES

The Iceberg Site - EjBe-19	
Area 1, Feature 2	2115 ± 70 (S1-2427)
Area 1, Feature 1 (1974)	2410 ± 50 (S1-2313)
Area 2, Feature 3	2440 ± 75 (S1-2428)
Area 5, Feature 17	2820 ± 75 (S1-2432)
Area 4a, Feature 10	2870 ± 60 (S1-2429)
Area 4a, Feature 13	2920 ± 60 (S1-2430)
Area 3b, Feature 7 (1974)	3055 ± 75 (S1-2432)
Area 5 south, Feature 19	3470 ± 50 (S1-2433)
The Black Rock Brook Site	
Feature 1, East	2960 ± 70 (S1-2437)
Feature 1, West	3500 ± 70 (S1-2438)